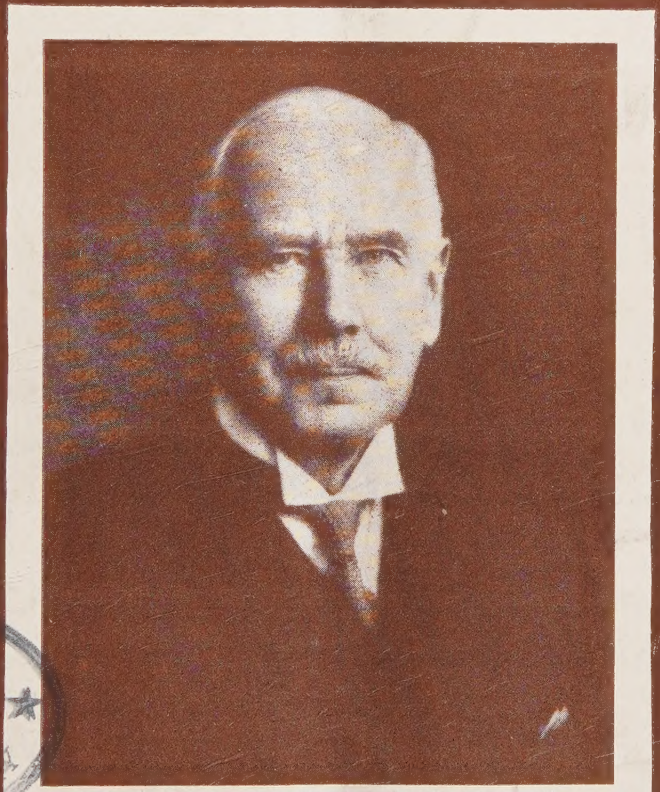
MEDICAL RECORD



SIR WILLIAM ARBUTHNOT LANE (1856-1943)
One of the World's Great Surgeons
Symposium on Surgery, page 539

September 1943

Vol. 156, No. 9

...by stepping three times over a grave...

Women of a certain Moroccan tribe believe that stepping three times over a newly-made grave will prevent pregnancy.*

● In placing Ortho-Gynol on the market as a prescription product, the manufacturers have continually borne in mind that this preparation must be scientifically compounded, meticulously controlled through laboratory surveillance, and that its properties must share the same high degree of uniformity required for all acceptable medicinal preparations. Thus, though Ortho-Gynol comes in contact solely with the vaginal mucosa, its manufacturers have applied all serious effort to insure the physician of absolute safety in its continued use, as well as maximum possible effectiveness.

*Himes, *Medical History of Contraception*

ortho-gynol
VAGINAL JELLY

COPYRIGHT 1943, ORTHO PRODUCTS, INC., LINDEN, N. J

In Childhood...

and Adolescence

LOOK AT THE BLOOD
TRADEMARK

In childhood and adolescence, the total hemoglobin increases with growth, and the store of iron in the body must be maintained proportionately. It is acknowledged that this added need for iron may be difficult to obtain from the food and, consequently, must be supplied as medication. Excellent results are offered by the use of specially prepared iron (easily assimilated ferrous sulphate—Plain or with Liver Concentrate) incorporated in . . .

*Hematinic Plastules**

THE BOVININE COMPANY ☆ CHICAGO

*Reg. U. S. Pat. Off. Copyright 1943 The Bovinine Company

Tension Relaxed

Syntropan,* the Roche non-narcotic antispasmodic, effectively relaxes the tension of smooth muscle spasm.

INDICATIONS: Syntropan 'Roche' is indicated in pylorospasm, cardiospasm, intestinal colic, spastic constipation, gastric spasm, peptic ulcer, megacolon, and tenesmus.

DOSAGE: One tablet (50 mg) three or four times a day, or as required. By subcutaneous or intramuscular injection, one ampul three times a day, or as required. HOFFMANN-LA ROCHE, INC., ROCHE PARK, NUTLEY, N. J.

*Phosphate of *dl*-tropic acid ester of 3-diethylamino-2, 2-dimethyl-l-propanol.

SYNTROPAN 'ROCHE'

NON-NARCOTIC ANTISPASMODIC

MEDICAL RECORD

FORMERLY KNOWN AS THE MEDICAL JOURNAL AND RECORD

PUBLISHED MONTHLY BY

THE MEDICAL JOURNAL AND RECORD PUBLISHING CO., INC.

SEPTEMBER 1943

OPEN FORUM 518

EDITORIALS 549

PAPERS AND ADDRESSES

Gastroenterology and Proctology
Alfred J. Cantor, Flushing, N. Y. 535

A Doctor Looks at Death
Bernard J. Ficarra, Brooklyn, N. Y. 536

Clinical Analysis of Fifty Cases of Diabetic Retinitis *(Concluded)*
S. A. Agatston, New York, N. Y. 553

SYMPOSIUM ON SURGERY

Importance of Latent Hepatic Disease in Surgery of the Gallbladder and Biliary Tract
Abraham O. Wilensky, New York, N. Y. 539

Excision of Ankylosed Sesamoid of Thumb
Henry Milch, New York, N. Y. 541

Breast Abnormalities as a Wartime Handicap
Jacques W. Maliniac, New York, N. Y. 542

War Injuries to the Speech Tract
Charles Voelker, Stillwater, Okla. 545

Accepted Treatment for Malignancy of the Uterus a Therapeutic Anachronism
J. W. Kennedy, Philadelphia, Pa. 546

Extensive Corneal Ulceration Following Removal of a Foreign Body
Charles A. Turtz, New York, N. Y. 548

NEWS ITEMS 551

(Continued on page 517)

VOL. 156, No. 9
WHOLE No. 2728

Entered as Second Class matter at the Post Office at Rutherford, N. J., under the Act of March 3, 1879. Office of Publication, 210 Orchard Street, East Rutherford, N. J. Editorial and Executive Offices, 215 Fourth Avenue, New York 3, N. Y.

SINGLE COPIES . . . FORTY CENTS
DOMESTIC YEARLY SUBSCRIPTIONS $4.00
FOREIGN YEARLY SUBSCRIPTIONS $4.75

Copyright, 1943, by The Medical Journal and Record Publishing Company, Inc.

Reading time for the busy practitioner—
29 seconds

—Physiologic

FOR the helpful promotion of a well-formed, easily voided bowel elimination in the chronically costive, Serutan employs none of the "artificial" methods that are often open to so many reasonable objections.

As an unfortified hydrogel (with hemicellulose as its principal active ingredient), Serutan absorbs and holds up to twenty times its own weight of water. Its influence is such, therefore, as to evoke a *normal evacuant response*. And the demulcent, unctuous and continuous character it imparts to the stool stamps its action as most gratifyingly *physiologic*.

Available: In 4-oz. or 10-oz. packages, or in 30-oz. hospital size container.

SERUTAN, PROFESSIONAL SERVICE DIVISION, JERSEY CITY, N. J.

SERUTAN

THE PHYSIOLOGIC AID TO
NORMAL EVACUATION

BOOK REVIEWS 555

CRITIQUE 557

MEDICOLEGAL NOTES 558

OUR CONTRIBUTORS 532

TRUTH OF THE MATTER

Vitamins at War
T. Swann Harding, Falls Church, Va. 560

MISCELLANY 564

Excellence in War Production

FOR developing and producing Sterile Shaker Packages of Crystalline Sulfanilamide especially designed to meet military needs, for supplying Mercurochrome and other drugs, diagnostic solutions and testing equipment required by the Armed Forces, and for completing deliveries ahead of contract schedule—these are the reasons for the Army-Navy "E" Award to our organization.

The effectiveness of Mercurochrome has been demonstrated by more than twenty years of extensive clinical use.

For the convenience of physicians Mercurochrome is supplied in four forms—Aqueous Solution for the treatment of wounds, Surgical Solution for preoperative skin disinfection, Tablets and Powder from which solutions of any desired concentration may readily be prepared.

Mercurochrome (H. W. & D. Brand of dibrom-oxymercuri-fluorescein-sodium) is economical because stock solutions may be dispensed quickly and at low cost by the physician or in the dispensary. Stock solutions keep indefinitely. Literature furnished to physicians on request.

HYNSON, WESTCOTT & DUNNING, INC., Baltimore, Maryland

Open Forum

Inter-American Health Work

Colonel Albert R. Dreisbach, assistant director, Health and Sanitation Division, Office of the Coordinator of Inter-American Affairs, in an address delivered before the Catholic Hospital Association in Pittsburgh on June 14th, said that inter-American cooperation among American republics in the interest of building a better civilization in the New World had progressed to new heights of achievement in the past eighteen months. This forward movement was noted particularly in the field of health and sanitation.

The health and sanitation work in the American republics had evolved from the comprehensive program to strengthen the defenses and mobilize the economic resources of the Americas, which had been adopted at a conference held in Rio de Janeiro soon after the attack on Pearl Harbor. To support this mobilization, cooperative health and sanitation measures were recommended, which were to be undertaken by the American republics within their individual capacities to contribute funds, technical skill, materials and labor. In accordance with these recommendations, the United States entered into health and sanitation agreements with fifteen of the other American republics.

The doctors, nurses, sanitary engineers and others at work in the inter-American health and sanitation program are carrying into action the Good Neighbor spirit which animates inter-American relations. The program embraces hundreds of construction projects and health activities, which include new hospitals, health centers, dispensaries, nursing schools, sanitation works and training projects.

Through such institutions as the Pan American Sanitary Bureau, improvement in hemisphere health standards was long ago recognized as one of the major objectives of inter-American cooperation. Now the need for collaboration in this work is more compelling than ever. War generates counter-measures to protect life, and, for the safeguarding of the Americas, it is just as necessary to have healthy soldiers on the production fronts as on the military fronts. One aim of the health and sanitation program is to help protect our soldiers of production while, at the same time, continuing to move toward the long-range goal of higher living standards for the peoples of the Americas.

The benefits of the inter-American health and sanitation program will be available to millions of people in the other American republics. These people include workers in the forests and jungles, miners, highway workers, and workers on fiber and quinine plantations, and on strategic defense bases. Workers on strategic projects receive immediate and direct benefits from the scores of hospitals, health centers, sewage and water supply and other projects completed or underway, but the indirect benefits extend much further.

Central and South America in great part lie in tropical and semitropical climates, where disease always has been a primary problem, whether in economic development or in defense strategy. In tropical areas, the malaria-carrying mosquito is the deadliest foe of man. Malaria has taken countless lives in the tropics—and still takes a heavy toll. Health and sanitation measures, therefore, are of first importance to protect those who must work in humid and hot climates within reach of the malarial mosquito. This is the background of much of the health and sanitation work now being carried out on the basis of the Rio de Janeiro recommendations.

The tropical Americas hold some of the world's richest natural resources, and it was inevitable that wartime mobilization of hemisphere resources would center in large part within malaria-infested regions. So, in these tropical climates, the chief work is malaria control, a work which involves drainage for elimination of mosquito breeding places, spraying and oiling stagnant pools, building hospitals and health centers to care for the sick, and the distribution of antimalarial drugs. In the tropics, where malaria abounds, everybody lives under the threat of infection. Thus, while directly involved in the development of economic resources, the malaria control projects spread their benefits far and wide.

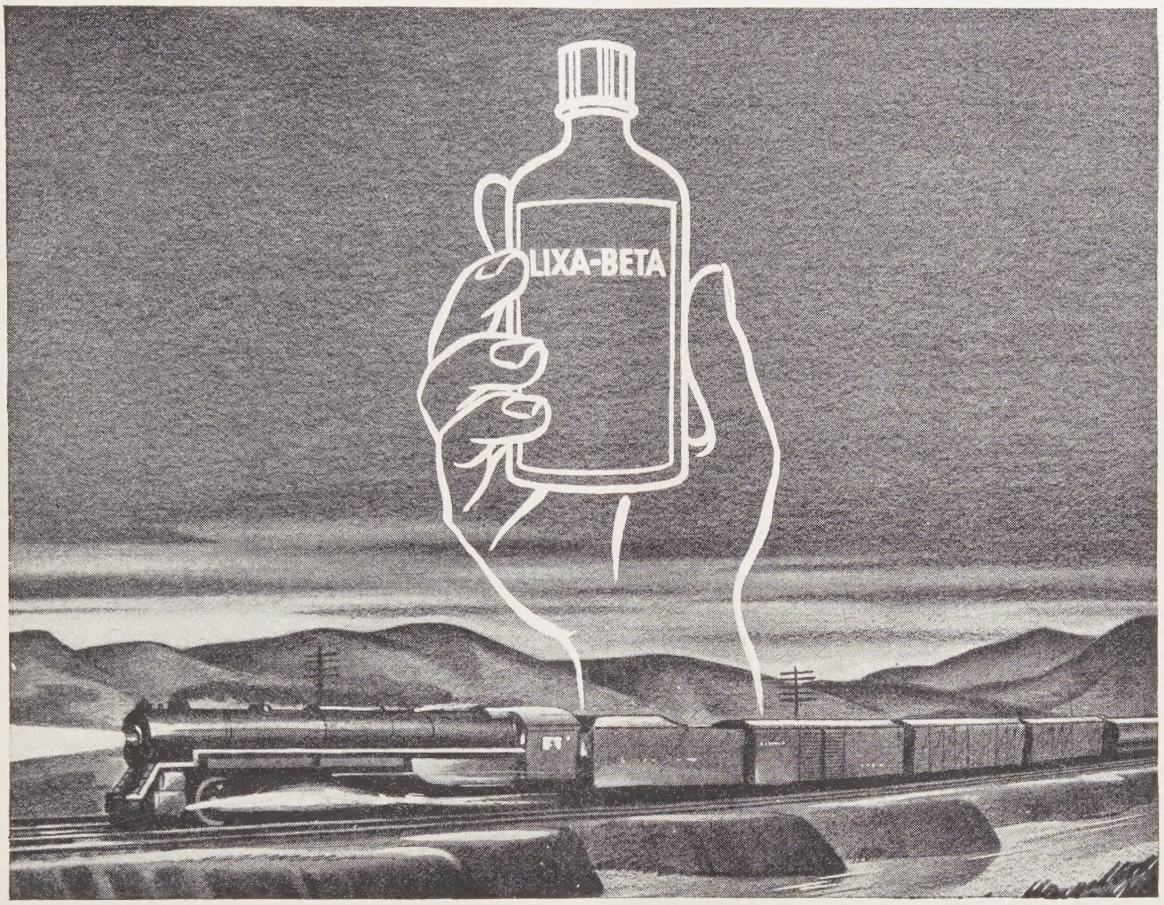
In the campaign against malaria now being waged in the Amazon countries, Central America, and Haiti, there is being established along the Amazon River and its tributaries, a chain of hospitals, health centers and floating dispensaries extending more than two thousand miles from near the mouth of the Amazon to the headwaters of the Amazon in Bolivia, Peru, Ecuador, and Colombia. These floating dispensaries consist of a fleet of motor launches, equipped with medical supplies and doctors, to reach remote sections of the Amazon country.

The work in Brazil affords a good illustration of the cooperative aspects of the inter-American program. Here a special agency known as the Service Especial de Saude Publica has been set up, which cooperates with the Institute of Inter-American Affairs. Forty United States doctors, sanitation engineers and other specialists have been assigned to Brazil by the Institute. Brazilian specialists and technicians number more than four hundred, in addition to 2,500 other employees. Brazil contributes funds along with materials, labor, and equipment. Altogether these contributions make a cooperative undertaking on truly inter-American lines. This is pretty much the pattern of the work in other countries.

One result of this cooperation, which will endure long after the war, is the large body of trained public health workers, as the training of doctors, engineers, professional and practical workers, nurses and sanitary inspectors is part of the work. These professional and technical workers are being prepared to take their places in the hospitals and the clinics being built in Central and South America, and will join the ranks of the hemisphere's growing forces of public health workers. The knowledge and skill they acquire will be useful for many years to come, and will contribute to the improvement of health standards. The training of additional nurses is an important aspect of the main program. This work includes the establishment of nursing schools, reorganization of existing nursing schools, and the provision of advanced and brush-up courses for practicing nurses.

The inter-American battle against disease is being waged on many fronts. Besides the work in malaria control, campaigns are carried on against tuberculosis, typhus and other diseases. Antityphus vaccine is being sent by air transport into Bolivia to control typhus in

(*Continued on page* 520)



This "COMMON CARRIER" *for your* PRESCRIPTIONS

Whenever you need a pleasant-tasting vehicle for your prescriptions which will at the same time provide B_1 therapy, think of Lixa-Beta. This "common carrier" will mix readily with soluble or insoluble or oily drugs. It has a greater solvent range than water alone, alcohol alone, or any fixed mixture of the two. A special suspending agent in Lixa-Beta quickly emulsifies oily substances and masks the objectionable taste. ¶Apart from its exceptional miscibility and compatibility as a vehicle, Lixa-Beta contains an adequate amount of Vitamin B_1—2664 U. S. P. Units to the fluidounce. One or two teaspoonfuls provide the daily maintenance dose. ¶If you have not yet become acquainted with the possibilities of Lixa-Beta for B_1 therapy and as a vehicle for numerous drugs, let us send you descriptive literature as well as a trial supply.

LIXA-BETA

WILLIAM R. WARNER & CO., INC., 113 WEST 18th ST., NEW YORK CITY

the tin mining areas, and the Institute of Inter-American Affairs is shipping one hundred bottles of the vaccine weekly, enough to vaccinate one hundred thousand persons. Special disease problems also form a part of the main program. This is illustrated in an effort to control onchocerciasis in Guatemala and southern Mexico. This disease is caused by a filarious worm and causes blindness. It is estimated that forty thousand persons suffer from the disease in Guatemala, and the Institute has allotted $100,000 to the Pan American Sanitary Bureau to further the work of controlling this disease.

The health and sanitation work of the Institute is backed up by a food program. Disease and hunger are twin problems in many places, and a better food supply is as essential as hospitals and drugs in protecting workers in the Amazon valley, for example. To become healthy, energetic soldiers of production, the workers must have proper food. The same cooperation which is shown in the health and sanitation work applies to food projects in areas where increased local production of food is necessary, either because outside supply sources have been lost or there is an increasing need of food in defense and strategic production projects. The food program, as well as the health and sanitation work, promises to bring lasting benefits in the improvement of living standards in the Americas.

Health and food are elemental human needs in peacetime as well as in war. The battle against disease and hunger is never-ending. Freedom from disease and freedom from want are worthy goals of inter-American cooperation, now and for the long pull. When the war ends, doubtless much of the apparatus for arms production and military organization will be dismantled, but the apparatus of the inter-American battle against disease and hunger is essentially the apparatus of peace. Inter-American cooperation in this work is one of the best assurances that we shall realize the better world for which we fight.

"Due Proof" of Disability

A protracted litigation on a life and disability policy reached a stage where the plaintiff sought to excuse his failure to keep up his premium payments for 1931 by an assertion of total disability because of a diseased condition of the heart, coming within the appropriate clause of the policy. The question involved became whether there had been "due proof" of that disability. Cardiac neurosis, the disability claimed, is, according to the testimony of the plaintiff's physician, functional and not organic. In plain English the court called it "the condition of a person whose nervous system responds unfavorably to the belief (whether true or false) that he has some organic disease of the heart." This ailment, the physician said, requires abstention from any sort of gainful occupation.

The plaintiff's expert witness balked at basing his opinion as to the beginning of plaintiff's heart condition on certain specific and enumerated symptoms to which the plaintiff had testified. He voluntarily agreed to base his opinion on the medical history of the case, or, as the record showed, on the examination he made of the plaintiff and of the history of the case which he got from him. He testified that he was able to form a medical opinion as to when the heart condition began,

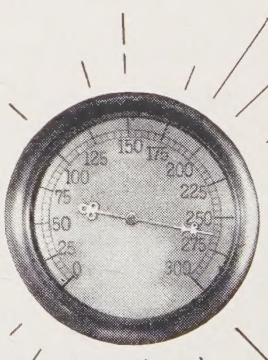
(Continued on page 522)

A FULL HEAD OF STEAM IS DANGEROUS
...Unless Controlled!

ESSENTIAL HYPERTENSION
The control of the dangerously elevated blood pressure is of primary importance.

VITAMIN A
has been found to have a marked effect in lowering the blood pressure and alleviating the tension symptoms of headache and intracranial pressure.

NION A CAPSULES,
providing 25,000 Int. Units of Vitamin A, as derived from a specially prepared fish liver oil concentrate, are particularly adapted to this type of therapy.



SUPPLIED IN PACKAGES OF 50, 100 AND 500 CAPSULES
Additional Information on Request

NION
NION CORPORATION
LOS ANGELES • CALIFORNIA

ORTHO presents:

hexital

(HEXESTROL-PHENOBARBITAL)

A Step Forward in Menopausal Therapy

In presenting Hexital, Ortho makes available to the medical profession a new therapeutic agent, which affords three distinct advantages:

I Lower incidence of nausea and other by-effects.

II More complete control of symptomatology, including alleviation of nervous disturbances.

III Convenience for the patient, in that two frequently-prescribed medicaments may be obtained in a single prescription.

The estrogenic component of Hexital, hexestrol, is significantly less toxic than stilbestrol. Moreover, recent clinical investigations indicate that the combined use of hexestrol and phenobarbital (Hexital) affords an even further reduction in the incidence of by-effects.

Hexital is supplied in scored tablets for oral use. Each tablet contains 3 milligrams hexestrol and 20 milligrams phenobarbital.

Literature available on request.

ORTHO PRODUCTS, INC., LINDEN, NEW JERSEY

and said it was two years prior to his first visit to the plaintiff in July 1932. The Third Circuit Court of Appeals, Peters vs. Mutual Life of New York, 107 F. 2d 9, said that he was not even asked to give that history and his entire opinion became therefore clearly inadmissible.

Some recent model statutes on the subject of expert testimony, the court said, permit, in the case of an expert having "personal knowledge", the reception of an opinion without the disclosure of its underlying data, leaving the elicitation of those minutiæ to the option of the cross-examiner"; but the present case did not deal "with personal knowledge of the patient's symptoms (examination), alone, but with personal knowledge of the patient's statement of those symptoms (history) as well."

After discussing the authorities, to which it added that "the history of a disease, dependent largely on mental processes, is about as far removed from a physician's direct physical examination as could be conceived," the court said that the Pennsylvania decisions, by which it was of course bound, appeared to adopt the strict attitude cited in Howarth vs. Adams Express Co., 269 Pa. 280, 112 A 536, from Rogers, Expert Testimony in the passage (p. 82) beginning: "An expert, testifying from personal knowledge, cannot be asked for an opinion based on facts which he has not given in evidence."

A judgment for the dependant in the Federal District Court for Middle Pennsylvania (26 F. Supp.), notwithstanding a verdict for the plaintiff, was therefore affirmed. The Supreme Court of the United States denied petition for writ of certiorari, 309 U. S. 663.

Venereal Disease Control in the Caribbean Area

A three-day joint conference was held in Washington, D.C., June 20th to 30th, by the members of the Interdepartmental Committee on Venereal Disease and representatives of the Anglo-American Caribbean Commission. During the first two days of the conference the subject of an adequate program for venereal disease control in the Caribbean area was discussed. The prevailing rate of venereal infections has always been high in this area and the need for an expanded control program was considered of outstanding importance to military personnel. The discussion also brought out the fact that a long-term program should be worked out from this experience as a permanent establishment as a civilian public health measure. It was pointed out that special health legislation in the Trinidad area is also needed in the foundation for adequate control measures. In Panama and Puerto Rico the present venereal disease control programs have been instrumental in obtaining a material reduction in military infection rates. However, there was need for the expansion of facilities and the addition of trained personnel in these areas. Discussion of problems for the Caribbean area as a whole included the planning of methods for expediting shipments of drugs and medicinal and laboratory supplies, utilizing the services of local resident physicians, and securing trained personnel for service in laboratories, hospitals and clinics.

The final day of the conference was devoted to a discussion of measures for malaria control in the Caribbean area as another means of safeguarding the health of Army and Navy personnel.

Pepsencia
REG. U.S. PAT. OFF.
WITH VITAMIN B_1

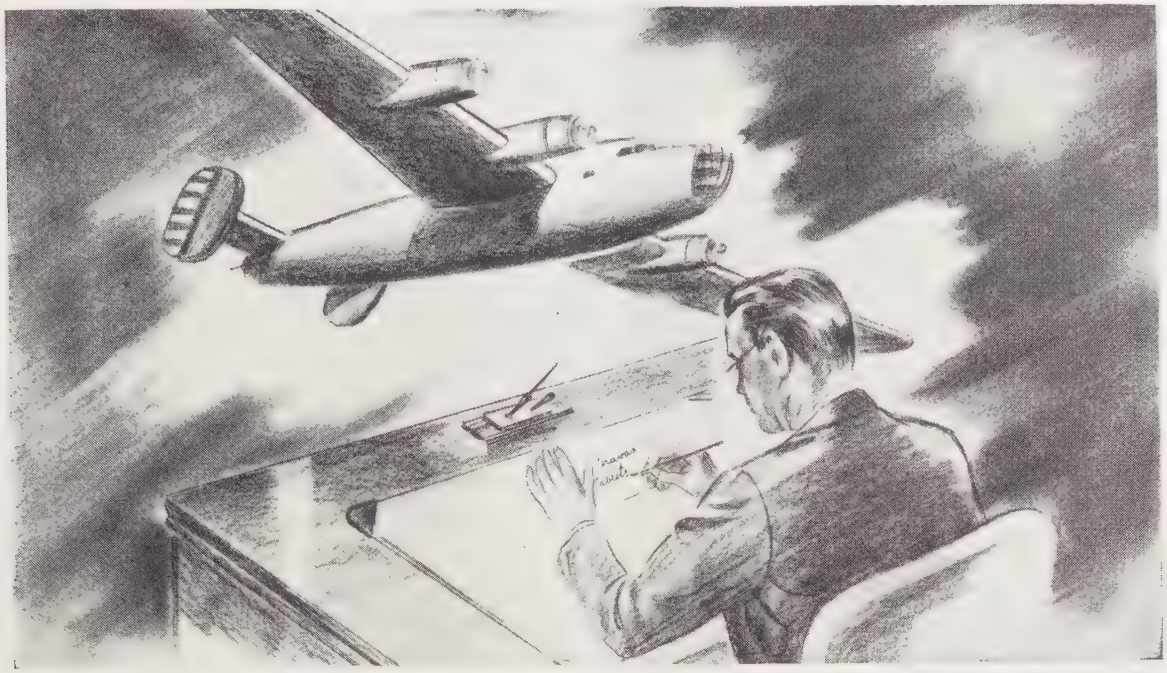
The *old* and the *new* join therapeutic forces

PEPSENCIA, the original essence of pepsin which has served physicians continuously since 1879 in the treatment of gastric disorders, now joins therapeutic forces with the modern vitamin B_1.

To this combination PEPSENCIA brings the essential organic principles of the gastric juice with the entire soluble glandular constituents in their normal association. Vitamin B_1 is present in an amount of 1,000 I. U.—thiamine chloride 3 mgs.—to each fluid ounce or 125 to the teaspoonful.

PEPSENCIA with vitamin B_1 is highly agreeable to all conditions of appetite and age.

Originated and made by FAIRCHILD BROS. & FOSTER NEW YORK, N. Y.



ANOTHER BOMBER IN THE SKY

—because of fewer colds all along the assembly line.

An enemy within our ranks, the common cold takes a yearly toll of more than 45,000,000 man-days of working time—a tremendous loss to the war effort.

Therefore, you can contribute directly to victory by helping your patients prevent colds and the complications of colds with Oravax.

CLINICAL EFFECTIVENESS—Controlled clinical studies, reported in current medical literature, demonstrate the effectiveness of *oral* vaccination with Oravax in reducing number, severity and duration of colds.

ORAVAX

ORAL CATARRHAL VACCINE TABLETS

Oravax is inexpensive, painless, free from severe reactions.

DOSAGE—One tablet daily for 7 days; then one tablet twice weekly throughout season when colds are most prevalent.

PACKAGE SIZES—Oravax is available at prescription pharmacies in bottles of 20, 50 and 100 tablets.

Trade Mark "Oravax"
Reg. U. S. Pat. Off.

MERRELL
115th Year

THE WM. S. MERRELL COMPANY
CINCINNATI, U. S. A.

The Wm. S. Merrell Company M.R.
Cincinnati 15, Ohio

Gentlemen:
Please send me a sample of ORAVAX and literature showing clinical results.

Dr. .....
Please print or write plainly

Address .....

City..... *State*

Sir Arbuthnot Lane

Sir William Arbuthnot Lane, Bart., C.B., M.D., M.S. (Lond.), F.R.C.S. (Eng.) F.A.C.S., died in London, on January 16, 1943. He was a brilliant surgeon, a master of his craft. Indeed, at a time after the discovery of anesthesia and antiseptics, when surgery made big strides forward, Arbuthnot Lane was in the van and never looked back. As an operator, he was bold, ingenious and sure, with more than a spice of originality. In a way he had an intuition or genius for surgery.

Born at Fort George, Scotland, on July 4, 1856, William Arbuthnot Lane was the eldest son of the late Brigade Surgeon B. Lane, M.S. He received his medical training at Guy's Hospital, London, where he did remarkably well, qualifying when but twenty years of age. When at Guy's Hospital, he was among the first to advocate aseptic surgery, and he practiced what he preached. Before he was thirty he was made assistant surgeon to the Hospital for Sick Children, Great Ormond Street, London, and soon became an assistant surgeon at Guy's Hospital and later was full surgeon. At the time of his death he was consulting surgeon to both these hospitals.

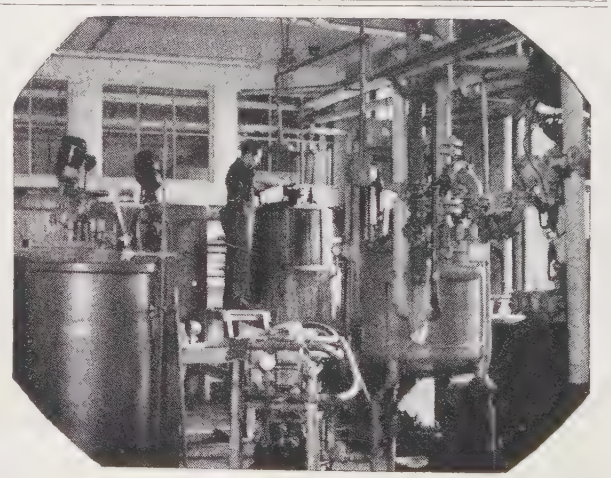
After qualification he soon had a large consulting practice but found time to develop and present some original views. From the first Lane evinced intense interest in deformities of the skeleton, concentrating his attention on the subject of fractures. Up to this time clumsy external apparatus had been employed in their treatment. Lane changed this, uniting the broken bones in perfect apposition by the agency of metal plates and screws. He had remarkable manual dexterity and this, combined with a meticulously scrupulous aseptic technique, attracted surgeons from all parts of the globe to watch, learn, and sometimes, of course, to criticize his methods. Most of these men came away impressed, especially by his insistence on correct alignment, while his skill in manipulation will be remembered by all who witnessed it. Another operation devised by him was for cleft palate. A subject in which he also took great interest was intestinal toxemia and the radical operations he performed for its relief gave rise to somewhat acrimonious discussion.

During the first World War Lane was a member of the Army Medical Staff, with the rank of colonel. He was mainly responsible for organizing and establishing at Sideup near London a special hospital for the treatment of facial injuries, and with the collaboration of Sir Harold Gillies and the late Professor Tonks of the Slade School, was largely instrumental in laying the foundation of plastic surgery, in Britain at least.

He was a practical, common sense speaker and an expressive writer on subjects which he understood thoroughly. In later life he took great interest in public affairs, especially in matters which concerned the physical, mental and social health of the nation.

He was editor of a journal in which he set forth his views and of those who were in agreement with most of them, and he also published a book of similar tenor which was intended to induce the man in the street to give attention to certain matters which concerned him intimately. In appearance he was a commanding figure, tall, lean, big of frame, and erect. His was a fascinating personality, genial and kindly. He will be remembered as one of the great surgeons of the world.

Important Contribution to
BILE ACID THERAPY



TRIKETOL is a distinct laboratory achievement representing years of original research in bile derivative chemistry. This research culminated in the production, by *proper oxidation*, of crystalline-pure, therapeutic bile acids, free from toxic, irritating contaminants inherent in crude bile. New formulations plus new equipment, of original design, contribute greatly to the exclusive ENDO method of producing TRIKETOL.

Exhibiting the two essential bile-acids—dehydrocholic and dehydrodesoxycholic—at maximum therapeutic efficiency, TRIKETOL provides an active hydrocholeretic and cholegenic in chronic cholecystitis, biliary stasis and other hepato-biliary disorders.

Moreover, its ability to increase production of bile (secreted as thin, limpid bile) is proving highly effective in the management of constipation due to biliary deficiency.

TRIKETOL

TRADE MARK

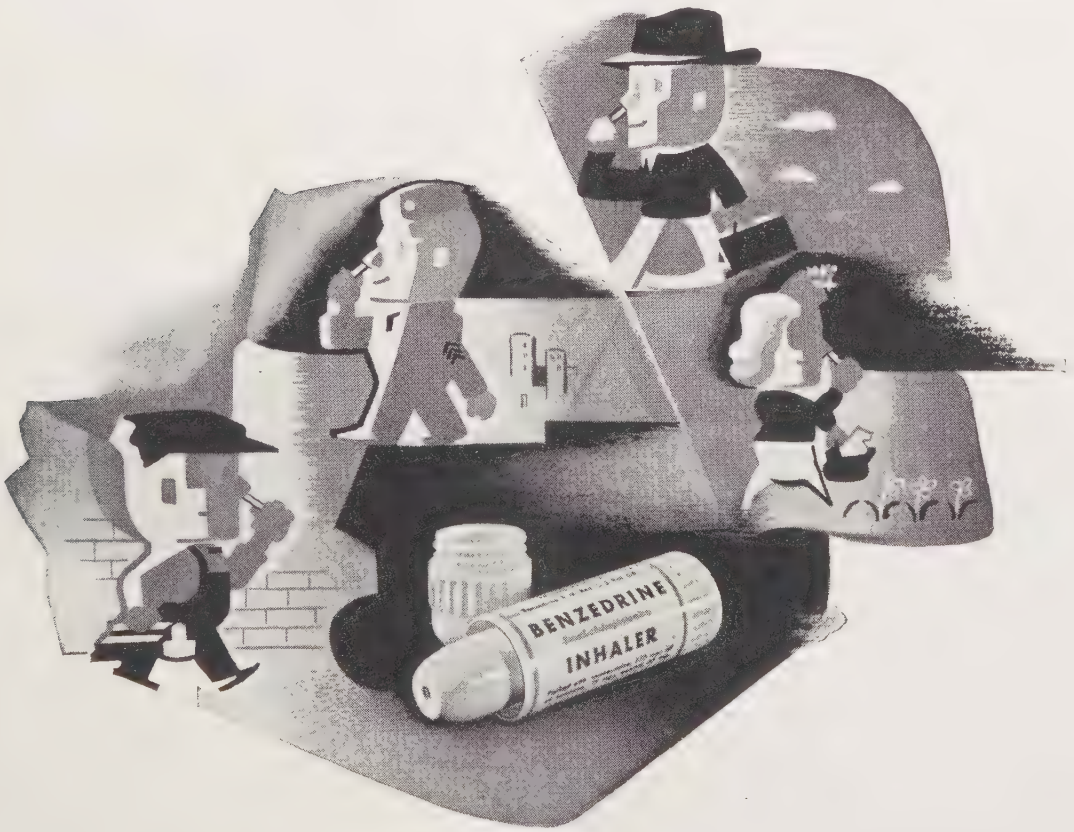
Available in bottles of 40 and 100 tablets, 3¾ grains each, at prescription pharmacies.

ENDO PRODUCTS, INC., RICHMOND HILL, NEW YORK

So Outstandingly Convenient

that the physician may overlook the fact that it is,

first and foremost, a highly effective therapeutic agent.



Benzedrine Inhaler

In a Modern Plastic Tube

Each Benzedrine Inhaler is packed with racemic amphetamine, S.K.F., 250 mg.; oil of lavender, 75 mg.; and menthol, 25 mg. Benzedrine is S.K.F.'s trademark, Reg. U. S. Pat. Off., for their Inhaler and their brand of racemic amphetamine.

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.

Legal Medicine Conference and Seminar

I. Conference: The Massachusetts Medicolegal Society in conjunction with the Department of Legal Medicine of Harvard Medical School has arranged for an all-day conference to be held at the Mallory Institute of Pathology, Boston City Hospital, Wednesday, October 6, 1943. This will be open to any registered physician, lawyer, police official, criminal investigator, senior medical student or other person whose duties are associated with medicolegal topics.

It will include lectures, demonstrations, and informal discussions concerning many subjects in legal medicine, particularly stressing results of some more recent methods. No limit has been made for the number of conference attendants, there is no fee, and advance application is not essential. Advance notice of intention to attend would be helpful, however, and should be addressed to Dr. William H. Watters, Department of Legal Medicine, Harvard Medical School.

II. Seminar: The Harvard Medical School, Courses for Graduates, will offer a Seminar in Legal Medicine to occupy the entire week October 4th to 9th, inclusive. It is planned particularly for medical examiners and coroners' physicians, but will be open also to any suitable graduate of an approved medical school.

The course will be practical rather than theoretical and will consist of autopsy demonstrations, technique and interpretation of laboratory tests, study of the day-by-day cases of a medical examiner, round table conferences, and the many subjects now included in the widening field of legal medicine. Application should be made on or before October 1st.

Philadelphia Rich in Military and Medical History

Philadelphia rightly claims the distinction of being the birthplace of the nation and of American medicine. Here the Declaration of Independence was signed. Here also were founded the first medical school, the first hospital and the first woman's medical college. The College of Physicians was formed in Philadelphia during the same year that the Constitution of the United States was being written here. Two of the founders of the College of Physicians, Dr. Benjamin Rush, of Pennsylvania, and Dr. James McHenry, of Maryland, were among the signers of the Declaration of Independence.

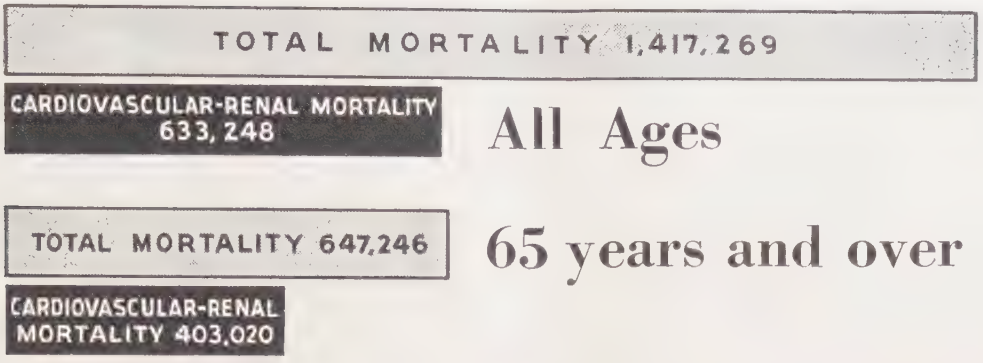
The Navy's Bureau of Medicine and Surgery was established originally in Philadelphia.

Throughout the years Philadelphia has maintained its high place in medical circles and today boasts of six of the country's outstanding medical schools. They are: The University of Pennsylvania, Graduate School, Jefferson, Temple, Hahnemann, and the Woman's Medical College of Pennsylvania.

Within a short distance of convention headquarters are such national shrines as Independence Hall, the Liberty Bell, the Betsy Ross House, Commodore John Barry's grave and other points that offer both interest and inspiration during these trying war days.

When the Association of Military Surgeons of the United States meets in Philadelphia next month, the attending physicians will be given an opportunity to visit two of the nation's leading military hospitals, the U.S. Naval Hospital in Philadelphia and the U.S. Army Hospital at Valley Forge.

TO SAVE YOUR TIME, DOCTOR
MENNEN ANTISEPTIC OIL
By helping to keep the infant free of many rashes and skin infections, Mennen Antiseptic Oil may often save avoidable calls. It is the only widely used baby oil that does all these three things:
• lubricates skin
• gives antiseptic protection
• provides analgesic relief
Gentlest on infants' skin
MENNEN ANTISEPTIC OIL



62% of *all* Deaths at 65 and over

caused by Cardiovascular-Renal Diseases*

The 20% increase in the mortality rate from cardiovascular-renal diseases in this country, during the decade 1931-40, runs parallel to the increase in the percentage of the aged population (65 years and over).*

The cardiovascular-renal group of diseases was the cause of more than 44% of all deaths for *all* ages in 1940; *and for over* 62% *of all deaths for the ages* 65 *and over.**

Hypertension has been considered to be directly and indirectly the cause of more than half the deaths from cardiovascular-renal diseases. This increase in the prevalence of vascular hypertension with the increase of the aged population reemphasizes the serious aspect and importance of this medical problem.

The cause of human essential hypertension is still unknown, and a specific medical treatment is not yet available. For symptomatic treatment, however, ALLIMIN is steadily and consistently gaining a wider acceptance by physicians.

Therapeutically ALLIMIN has been found to be an effective and *safe* peripheral vasodilator for the control of elevated blood pressure. In practice, ALLIMIN has been found impressively useful for the alleviation of such symptoms as headache and dizziness that so frequently manifest themselves in hypertension. ALLIMIN is safe and non-toxic. Administration may be maintained without fear of undesirable side-effects, or untoward reactions.

COMPOSITION: ALLIMIN tablets are enteric coated; tasteless, and odorless. They contain 4.75 gr. dehydrated garlic concentrate and 2.37 gr. dehydrated parsley concentrate.

DOSAGE: The minimal dose is two tablets, t.i.d., after meals. Intermittent courses of administration, skipping every fourth day, recommended. ALLIMIN is advertised exclusively to the medical profession. For professional sample and pertinent literature, sign and mail the coupon.

*Based on data in VITAL STATISTICS—Special Reports, 15:219, April 15, 1942, Bureau of the Census; and additional data furnished by the Bureau.

VAN PATTEN PHARMACEUTICAL CO.
500-510 North Dearborn Dept. M.R. Chicago

Gentlemen: Please send professional sample of ALLIMIN and covering literature.

Dr. _____

Address _____

Town _____ State _____

The Home Front

Women are leading more active lives during this War and need protection against the natural periodic loss of energy.

Hyperol

a utero-ovarian tonic and corrective for disorders of functional origin, should relieve pain and lassitude and help your patient to keep up active work without interruption.

HYPEROL contains Hydrastine Alkaloid, Aloin, Apiol and Ferrous Carbonate (Blaud).

Samples to Physicians on Request.

THE

PURDUE FREDERICK COMPANY

Makers of Gray's Compound

135 Christopher Street

New York 14, N. Y.

The Schering Award

The winners in the Schering Award Competition of 1942 have been announced by the committee of judges. The subject was "Endocrinology in War Medicine" or approved alternative subjects. The first prize, consisting of one full year's scholarship, was awarded to Elizabeth L. Brown, Class of 1943, New York Medical College, for her essay entitled "Endocrines and the Nervous System". The second prize, one-half year's scholarship, was awarded to Eugene B. Brody, Class of 1944, Harvard Medical School, for his essay entitled "Hormone Factors in Personality". The third prize, $100.00 in cash, was awarded to Roslyn Wiener, Class of 1943, University of Michigan Medical School, for her essay entitled "Rôle of Hormones in Pregnancy and Parturition".

The Award is offered annually by the Schering Corporation for the purpose of stimulating interest in endocrinology among undergraduate medical students. It is sponsored and administered by a special committee of the Association of Internes and Medical Students, and is now in its third year. This year a large number of excellent manuscripts were submitted which received highly favorable comment from the committee of judges. The following students have warranted honorable mention, and through the courtesy of the Schering Corporation, they will receive a one-year subscription to either *Endocrinology* or the *Journal of Clinical Endocrinology*: N. G. Demy, Marquette University; N. Josephson, Yale Medical School; S. Kafka, Middlesex University; G. V. Mann, Johns Hopkins; L. W. Pratt, Johns Hopkins; A. Segaloff, Wayne University; A. J. Swyer, University of Vermont; G. Turtletaub, Middlesex University; E. W. Amyes, College of Medical Evangelists; C. Cohen, Loyola University; and A. P. Rosen, Long Island College of Medicine.

The committee of judges included eight outstanding American investigators in the fields of endocrinology, medicine and chemistry. They are R. G. Hoskins, Harvard Medical School; E. P. McCullagh, Cleveland Clinic; E. C. Hamblen, Duke University School of Medicine; E. Novak, University of Maryland School of Medicine; H. M. Evans, University of California; F. C. Koch, University of Chicago; E. L. Severinghaus, University of Wisconsin Medical School, and E. Shorr, Cornell University Medical College.

Medical Kits for the Coast Guard

The thirteen Naval Districts of the Coast Guard have each received a second shipment of emergency medical kits for use on patrol-boats from the Medical and Surgical Relief Committee of America. This second round of shipments each averaged ten to twenty medical kits. To date, 362 patrol-boat sets have been distributed to the Coast Guard from an expected total of one thousand. In addition, the Committee has donated 191 similar medical kits to Navy sub-chasers, sending them directly to the commanding officer of the individual ships.

Specially designed by Committee doctors for small sub-hunting craft, the sub-chaser or patrol-boat kit is a compact case containing essential drugs and an instrument roll, and is prepared to give emergency treatment to casualties until the ship reaches a base hospital. The kit has proved to be particularly useful when patrol-boats pick up shipwreck survivors.

One Task--But RIASOL Does It Well

RIASOL has but one indication. That is the treatment of psoriasis and the eradication of the ugly, disfiguring lesions.

RIASOL performs this taks with outstanding efficiency. Under RIASOL medication there is *faster, safer* and *more complete* elimination of the embarrassing scaly lesions. This fact is confirmed by carefully controlled clinical studies on patients who had proved resistant to other forms of treatment.

RIASOL may be applied to psoriatic lesions wherever encountered on the body, including the face and scalp. It is easy to use, non-staining and requires no bandaging. These factors of convenience are a welcome change to psoriatic patients who dislike the messy, evil-smelling preparations so often prescribed for their condition. Convenience plus evident results fosters cooperation and helps to hasten clearance of lesions.

RIASOL contains 0.45% mercury chemically combined with soaps, 0.5% phenol and 0.75% cresol in an oily emulsified liquid. Apply once daily, preferably before retiring, after bathing and thoroughly drying the skin.

Advertised exclusively to the medical profession. Available at pharmacies or direct in bottles of 4 and 8 fluid ounces. For professional literature and generous *free* testing bottle of Riasol, mail coupon today.

Before Use of Riasol

During Use of Riasol

After Use of Riasol

RIASOL *for Psoriasis...*

SHIELD LABORATORIES MR-9
8751 Grand River Ave., Detroit 4, Mich.

Please send professional literature and generous *free* testing bottle of RIASOL.

..... M.D. ..... Street

City ..... State .....

Druggist ..... Address .....

Warrior

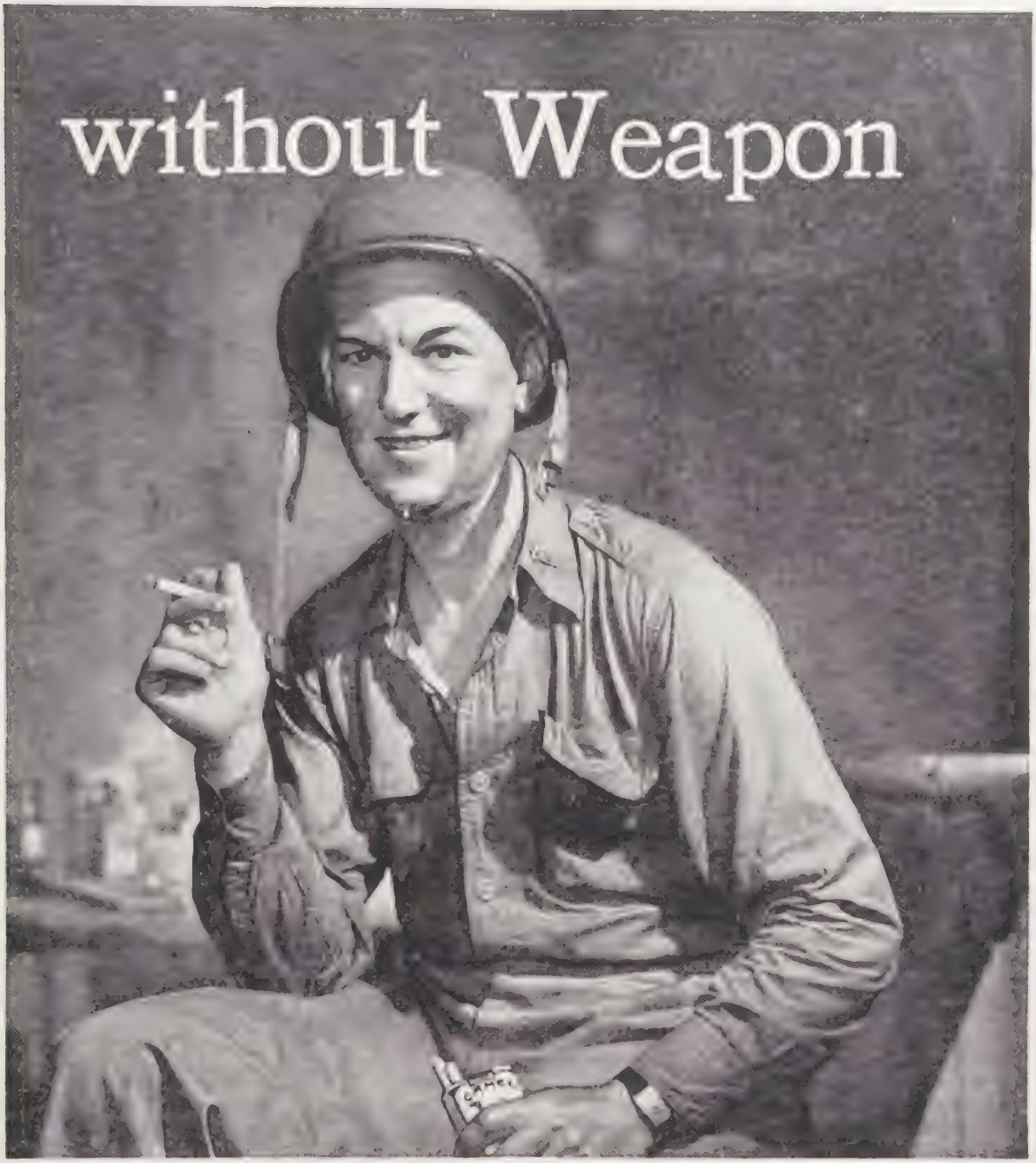
THE military doctor of World War II — unarmed yet unafraid — moves up shoulder to shoulder with the combat troops. Bayonet charge . . . parachute landing . . . beach-storming from raiding barges . . . constantly, the medical officer proves that he is every inch a fighting man.

More than likely, he's a Camel smoker, too, for Camel's mellow mildness and smooth, comforting flavor quickly won it first choice in the armed forces.*

Planning a gift for someone in service? Make it Camels . . . a carton . . . the *thoughtful* remembrance.

BUY WAR BONDS STAMPS

Camel



1st in the Service

*With men in the Army, the Navy, the Marine Corps, and the Coast Guard, the favorite cigarette is Camel. (Based on actual sales records.)

New reprints available on cigarette research—Archives of Otolaryngology, February, 1943, pp. 169-173—March, 1943, pp. 404-410. Camel Cigarettes, Medical Relations Division, One Pershing Square, New York 17, N. Y.

Costlier Tobaccos

Our Contributors

JACQUES W. MALINIAC, M.D., New York, N. Y., was graduated from the University of Paris, France, in 1914. He is attending in plastic and reconstructive surgery at the Sydenham Hospital, New York., Beth Israel Hospital, Newark, N. J., St. Peter's Hospital, New Brunswick, N. J., and a consultant at the Children's County Home, Westfield, N. J. He is a member of the Academy of Medicine of Northern New Jersey, the American Academy of Ophthalmology and Otolaryngology, and the Society of Plastic and Reconstructive Surgery, of which he is past president, and is also a corresponding member of the Cuban National Surgical Society and the Cuban Otorhinolaryngological Society.

* * *

CHARLES A. TURTZ, M.D., F.A.C.S., New York, N. Y. received his medical degree from New York Medical College in 1915. After his internship, he served in the world war as a senior lieutenant in the U. S. Naval Service. At present he is assistant clinical professor at New York Medical College; assistant ophthalmologist, Flower and Fifth Avenue Hospitals and director of ophthalmology, Metropolitan Hospital and Clinic, New York. He is a Diplomate of the American Board of Ophthalmology and a Fellow of the American College of Surgeons. He enjoys travel and fishing and his hobbies are music and painting.

* * *

HENRY MILCH, M.D., New York, N. Y., was graduated from the College of Physicians and Surgeons, Columbia University, New York, in 1920, and is now on the teaching staff of the department of anatomy, College of Physicians and Surgeons, Columbia University. He is attending orthopedic surgeon to Riverside Hospital, and attending surgeon to the Hospital for Joint Diseases. His hobbies are chamber music and outdoor sports.

* * *

J. W. KENNEDY, M.D., Philadelphia, Pa., is president and surgeon in charge of the Joseph Price Memorial Hospital. He is also consulting abdominal surgeon to the Chambersburg, Norristown, and Coatesville Hospitals. He is a graduate of Jefferson Medical College and a Fellow of the American Association of Gynecologists, Obstetricians and Abdominal Surgeons, and a member of the American College of Surgeons.

* * *

ABRAHAM O. WILENSKY, M. D., New York, N. Y., was graduated from the College of Physicians and Surgeons, Columbia University, New York, in 1907. He is a member of the American Medical Association, a Fellow of the American College of Surgeons, a member of the American Association of Thoracic Surgery, and a consultant in several hospitals in general and abdominal surgery.

* * *

ALFRED J. CANTOR, M.D., Flushing, N. Y., was graduated from Syracuse University College of Medicine in 1936, and has received the honorary degrees of Phi Beta Kappa, Phi Kappa Phi, and Alpha Omega Alpha. He is especially interested in proctology and gastroenterology. He is connected with the surgical clinic at Flushing Hospital, the gastroenterological clinic at Queens General Hospital and the proctological clinic at the Hospital for Joint Diseases. After two years of experimentation, he has recently completed a radically new type of sigmoidoscope which was presented at the National Gastroenterological Association Convention in New York. His hobby is magic, especially of the manipulative and mind-reading variety.

* * *

BERNARD J. FICARRA, M.D., D.N.D., Brooklyn, N. Y., received his medical degree from Georgetown University School of Medicine, Washington, D. C., in 1939, and since that time has been at Kings County Hospital, Brooklyn, N. Y. He served a two-year surgical internship, and a residency in pathology, and at present he is resident surgeon at the institution. In 1940 he was commissioned a Captain in the Medical Corps, U. S. Army, and was on active duty until September 1941, when he was honorably discharged for physical disability. His hobby is writing, and his favorite topic is medical history.

* * *

CHARLES H. VOELKER, M.A., Stillwater, Okla., formerly instructor in the Speech and Hearing Clinic at Ohio State University, is director of the Rehabilitation Clinic for the Disabled and Handicapped at Oklahoma Agricultural and Mechanical College, Stillwater. The Clinic offers service to the speech defective, hard of hearing, and crippled children in the Southwest. Its adult subjects are victims of industrial and other accidents, tuberculosis, rheumatic fever, paralysis, blindness, deafness, and amnesias. Professor Voelker is director of the faculty committee on vocational rehabilitation.

Jean Antoine Villemin

The name of Villemin is almost unknown and yet he well deserves to be remembered, as he was responsible for the forging of one of the links showing the origin of human tuberculosis. Professor Roux, in his speech in the occasion of the centenary of Villemin's birth, pointed out that the three fundamental advances in the history of tuberculosis were made by three men, "Laennec, who proclaimed its unity; Villemin, who demonstrated that it was due to a virus; R. Koch, who discovered and identified its pathogenic agent."

Villemin was born in Prey, a small Vosges village, in 1827. When he was a child his father died and he was sent by his uncle to Bruyères College. He was conscripted into the army in 1848 and when stationed at Strassburg was advised by the colonel of his regiment to study medicine. He began his studies at the military hospital of Strassburg, completed his course and qualified in 1853. In the same year he was admitted to the medical school of Val-de-Grâce and was later promoted to the rank of Major in the Medical Corps. In 1863 he was appointed professor agrégé at the Val-de-Grâce Army Medical School. He became a member of the French Academy of Medicine in 1874 and was named vice-president in 1891. He died in 1892.

Villemin wrote a great work, *Etudes sur la Tuberculose*, published in 1865. He proved beyond peradventure that tuberculosis is infectious and can be transmitted from a human being to a rabbit; also, that tuberculous sputum, when inhaled, can give rise to pulmonary tuberculosis, and when ingested, to intestinal tuberculosis.

BUY U.S. WAR BONDS

Begin today to save a little, to sacrifice a little. Buy U. S. War Bonds!

BONDS that will help send supplies and reinforcements wherever they are needed.

BONDS that can bring nearer the stirring day of victory!

BONDS that are the safest investment today — that will return you $4.00 at the end of ten years for every $3.00 invested.

Published in cooperation with the Drug, Cosmetic and Allied Industries by:

FELLOWS MEDICAL MANUFACTURING COMPANY, INC.

New York, N. Y.

FOR IODINE RESULTS WITHOUT THE USUAL IODINE DISTURBANCES

ORGANIDIN—WAMPOLE

A STABLE PREPARATION OF IODINE

IODINE

ORGANICALLY COMBINED

FOR INTERNAL ADMINISTRATION

Freely miscible with water. Contains no free iodine, no hydriodic acid, no inorganic iodides and no alcohol.

ORGANIDIN is absorbed readily from the gastro-intestinal tract, with less irritation and less toxicity than is produced by elementary iodine. Thus it permits a maximum effect with a minimum iodine dose.

A superior product which may be administered over an extended period of time with little probability of causing gastro-intestinal disturbances or iodism.

SUPPLIED IN 1-OZ. BOTTLES

MADE SOLELY BY

HENRY K. WAMPOLE & CO., INC.

MANUFACTURING PHARMACISTS

PHILADELPHIA, PA. U. S. A.

What could be a more rational remedy for hyperacidity?

• *Each Syntrogel Tablet contains the following ingredients:*

ALUMINUM HYDROXIDE 'ROCHE' — exerts prompt, effective adsorptive action, reducing gastric hyperacidity.

SYNTROPAN 'ROCHE' — a non-narcotic antispasmodic for gastrointestinal spasticity.

CALCIUM CARBONATE — acts as a neutralizing agent. It is insoluble and does not provoke subsequent acid rise.

BISMUTH SUBCARBONATE — affords astringent and antiseptic actions. It allays irritation by forming a soothing coating over the inflamed mucosa.

OIL OF PEPPERMINT — provides a pleasant taste and tends to relieve the discomforts of flatulence.

SYNTROGEL TABLETS *'Roche'*

HOFFMANN-LA ROCHE, INC., ROCHE PARK, NUTLEY, N. J.

MEDICAL RECORD

PUBLISHED MONTHLY BY
THE MEDICAL JOURNAL AND RECORD PUBLISHING CO., INC

VOL. 156, NO. 9 SEPTEMBER 1943 WHOLE NO. 2728

GASTROENTEROLOGY AND PROCTOLOGY

ALFRED J. CANTOR
Flushing, New York

Special examining and qualifying boards have taken it upon themselves to certify specialists in the various fields of medical practice. Until these fields are well defined such boards serve little practical purpose. For example, a physician may be certified as an otolaryngologist and yet be entirely unprepared to perform a bronchoscopy. Indeed, bronchoscopy may be better included in the field of the lung specialist. Further, the otolaryngologist is often expected to perform esophagoscopy or gastroscopy, examinations which rightfully belong in the gastroenterologist's domain. Or, logically, why should not these endoscopic procedures be performed by the most capable endoscopist of all, the proctologist?

The proctologist is indeed a man without a country. Certain proctologists limit themselves to ambulatory treatment of the sigmoid, rectum and anus. Others include surgery of that area with the exception of radical resections, as for carcinoma. Still others feel that they may with impunity enter the abdomen and perform all large bowel surgery. The general surgeon, however, claims all this surgery for himself, and the gastroenterologist often includes ambulatory proctology in his practice. This leaves nothing for the proctologist.

The gastroenterologist is ordinarily considered to be a medical man. This is taken to indicate that he does no surgery. Gastroenterology is thus a medical specialty. Its field extends from the lips to the anus and properly includes the tonsils and adenoids. Indeed, so many gastrointestinal problems derive their etiological origin from the nose, sinuses and throat that these regions should be definitely included in the field of study of the gastroenterologist. This may seem to be an invasion of the otolaryngologist's specialty. Actually, however, it is not. The gastroenterologist should deal with diseases of the nose, sinuses and throat only insofar as they produce symptoms in the gastrointestinal tract. He would not be expected to treat an acute antrum condition, a sphenoiditis, or an acute tonsillitis as such. However, if his surgical skill is adequate he might reasonably be expected to advise and even to perform a tonsillectomy in any case where the indication is gastroenterological. Further, he might be expected, if his skill and equipment permit, to treat a case of chronic sinusitis with postnasal drip that is productive of gastritis.

The gastroenterologist has already invaded the field of proctology. Some gastroenterologists specify that they treat only ambulatory proctological problems. They limit themselves to the injection treatment of hemorrhoids, prolapsus ani, anal fistula and pilonidal disease. They will treat anal ulcer by injection, and pruritus ani by conservative means. Sigmoidoscopy is a routine element in every complete gastrointestinal investigation. Colonic therapy, whether it be by insufflation of powders through the sigmoidoscope or by irrigation, is considered a proper inclusion in their field. The proctologist will assert that these forms of therapy are outside the field of the gastroenterologist. He feels that unless the choice between ambulatory and surgical therapy can be made by a specialist who is equipped to do either, as indicated, too often expedience rather than logic will dictate the choice of therapy. Thus, injections will be advised and performed even in strictly surgical cases. Most proctologists will agree that every fistula and every pilonidal cyst should be treated surgically and not by injection. Indeed, proctological procedures, whether or not they be ambulatory, are surgical in nature. If the gastroenterologist is adequately trained in these surgical procedures, then he may rightfully include them in his armamentarium. If his technique is properly acquired he may advise or perform a hemorrhoidectomy or fistulectomy without overstepping the boundaries of his field.

Thus we arrive at a new division of labor. There may be pharyngogastroenteroproctologists, pharyngogastroenterologists, gastroenteroproctologists, gastroenterologists, proctogastroenterologists, and proctologists. These are the chief combinations that logically suggest themselves. The pharyngogastroenteroproctologists will deal with sinus, nose, and throat problems as they relate to the alimentary tract, and should be equipped to do tonsillectomy as well as hemorrhoidectomy. The gastroenteroproctologist finds his especial interest in gastroenterology, but is equipped by training to do surgical proctology as well. The gastroenterologist limits himself strictly to the esophagus, the stomach, the small and large bowel, liver and pancreas, and only in their medical aspects. The proctogastroenterologist is primarily interested in proctology and is especially well trained in the surgical procedures of this region. Thus, although his practice stresses the sigmoid, rectum and anus, in both medical and surgical aspects, he is further prepared to deal with pathology in the upper in-

testine, gastric and esophageal regions. The proctologist limits himself to diseases of the anus, rectum and sigmoid, and should be prepared to perform all surgical and medical procedures in these regions.

This division is not arbitrary. It is forced upon us by the present sketchy limitations of the various fields. If a man feels himself capable of coping with problems in the lower alimentary canal he should not feel restrained from the necessary therapy in that region simply because he is also well equipped to handle disease in the upper alimentary canal and is known as a gastroenterologist. Indeed, so much the better for his patient that he can do both with equal facility. The best alimentary specialist would be the man who did not arbitrarily divide the gastrointestinal tract into sections and say, "I shall be a pharyngologist or an esophagologist, or a gastrologist, an enterologist or a proctologist." He should be all of these. He should be an alimentary specialist or a pharyngogastroenteroproctologist. Further, he should be either a medical pharyngogastroenteroproctologist or a surgical pharyngogastroenteroproctologist. If the former, he should perform no surgical procedures and no injection treatments in the lower bowel. If the latter, he should be qualified to operate on the gastrointestinal tract as well as to diagnose and to treat medically, as indicated.

Conclusion

The specialty fields of gastroenterology, proctology and otolaryngology overlap and are poorly defined.

A well trained alimentary specialist should be prepared to diagnose and treat all conditions relating to the alimentary canal, from lips to anus. The close relationship of gastroenterology to sinus, nose and throat pathology is described, and it is obvious that diagnosis and therapy in these regions should be included in the gastroenterologist's armamentarium.

The medical gastroenterologist should perform no injection treatment in the anus or rectum. This is a surgical procedure and should be in the hands of the specialist who is qualified to choose between and perform either ambulatory or surgical proctology.

Thus, more logical division of labor is proposed, and a new terminology. The medical pharyngogastroenteroproctologist and the surgical pharyngogastroenteroproctologist would be the two alimentary specialists. The former would deal with all the medical aspects of disease from lips to anus, and the latter would be qualified to diagnose and treat medically and surgically all pathology in the same regions. It is realized that few will qualify for either group.

43-55 KISSENA BOULEVARD

A DOCTOR LOOKS AT DEATH

BERNARD J. FICARRA
Brooklyn, New York

"With that too human wail in pain expressed:
The parent cry above the empty nest."
—S. WEIR MITCHELL, M.D.

The love of life and the fear of death have been the topics of the written and spoken word since the existence of man. Of the two, life is accepted with lesser thought. Death is recognized when we are confronted with its grim finality. The attitude of men toward death has been expressed in many ways. Often the manner in which death approaches has altered our response to it. The time of life when death reaps its harvest has augmented or diminished the surliness of its presence.

When death encompasses a simple child that lightly lives from day to day, then sorrow fills the hearts of men with inexpressible emotions. If death seizes a person in the midst of a career, which gives promise of greatness and hope, can it be said that such a termination lends grace to life? This thought could be respected if the classic Grecian proverb, "He whom the gods love dies young," was in vogue. In old age, when the final scene is fast approaching, the aged try to turn their heads aside to avoid the inevitable sight. Old men sense the approach of death, and fear it. Elderly patients are more nervous about death than the young. Many a young person has been sent to a home for the incurable without being much perturbed. But no one is more terrified than the old lady who falls on her kitchen floor and fractures her hip. How she clings to life! Her last few weeks on earth are passed in terror. Finally merciful pneumonia comes to rock her into an endless sleep. With the tenacity of old age the aged grasp the final thread of living hope, for it cannot be denied, at whatever decade death overtakes man, it is to die young. Man commences to live, he passes a period in laborious toil, he experiences the bitterness of sorrow and the sweetness of love. The noise of his existence is still an echo, when out of the silence of nothingness, his soul is projected into the spiritual land.

Death does not wait upon formalities, it needs no introduction, no door is barred to its entrance, no place of secrecy is hidden from its eyes. None is so strong, none so powerful as to turn the wheel of death from its downward course. It may come by night or enter by day. Neither wealth nor power can bribe this adversary. Sometimes it leaps suddenly upon its victims like an enemy striking in the night. At other times it lays a regular siege, gradually overcoming the nonsuspecting person over a period of years.

Mankind has received death in various ways, some eagerly with open arms, others fighting to the end. Many men fear death because of ignorance, even as a child fears the darkness. The brave of heart die but once. Napoleon appreciated this fact. For this reason during the height of battle he would shout: "My lads, you must not fear death; when soldiers brave death, they drive him into the enemy's ranks." Learning and religion assist in the reception of death. Both are forceful factors in conquering or mitigating the fear of death. Mortals who have preserved their souls in religious sanctity approach death fearlessly, accepting the lethal embrace as a rebirth into greater perfectness.

The changes wrought by death are so complete, so final in their results, that this experience has no parallel upon earth. It outshines all other actions for it is

the last. The dead no longer play a part. A chosen few may taste of immortality when they live in the hearts of those they leave behind. It is the living who must bear the pain. Death does not take those we love away entirely; a lingering, almost intolerable memory is left behind, which can be eradicated only imperfectly. Death causes havoc in the lives of others: a link is gone from the chain which has held many friendships together. There are vacant chairs at the dinner table, lonely solitary walks in the evening, and empty beds at night. Where once there was fulness and life, now only the desolation of emptiness remains.

If death must have the final act, it is best that it be done quickly. More preferable is it to live briefly and be done with it, than to die daily in the sick room. This is a logical thought but most difficult to convey. How can one say this to the widow of a patient who only a short time before was living? Yet the doctor in a hospital, where death is a common occurrence, is presented with this problem daily. He is called to pronounce his former patient dead. In the corridor he passes the wife, her adult son and daughter. All feel the lugubrious presence of death: yet all await the final pronouncement. With the greatest care the doctor says that the patient is no longer with us. The wife faints, the daughter becomes hysterical, the son's face ages in a single moment. In this situation the doctor alone remains calm, though sympathetic. The air is heavy with mixed emotions and in this confusion the doctor has a painful task. He has the important duty of trying to secure from the wife (or nearest relative) of the deceased permission for postmortem examination. With the greatest resourcefulness and diplomacy, he asks the wife for permission to perform an autopsy. Her reply is no, with the exclamation, "he has suffered enough".

The doctor is attempting to be persuasive. "We will not add to his sufferings; they are now ended. But think of many others who are now suffering as he did. Do you not think it would make him happy to know that your consent might save someone from the misery he experienced?" Her answer persists, "No".

The doctor realizes that she is emotionally excited, and that the sentiments awakened by death offer strong opposition to any procedure which might lessen in her eyes the dignity of or mutilate the body of her loved one. Vainly the house doctor tries to move her from her fixity of purposeful denial. He appeals to her with arguments based on practical reasons known to medical men, but not realized by the laity. His manner is enhanced by his dignified sympathy, tact and sincerity. The physician knows that he is a member of an honorable profession whose associates since Hippocrates have encountered sickness and death. He possesses a noble heritage based on gratitude and respect. Knowing these things he has a dignity seen in older nonmedical men.

The doctor feels that he is not able to gain the widow's confidence sufficiently to secure the request he seeks. Perhaps his white uniform is a liability on this occasion. Some people have the erroneous impression that a man in white is immature for such a serious situation. Outwardly the young doctor appears to have given up the thought of the autopsy. Dexterously he brings the family to the director's office where he knows he will meet the resident surgeon. He introduces the family to the resident surgeon and leaves. No reference is made as to the purpose of this meeting.

The resident surgeon asks, "Is there anything you would care to know about this patient?" Both children are anxious to discuss the case in some detail. The son appears most interested and the conversation is directed in particular towards him. The salient features of the case are discussed. The familial tendency of the disease has aroused the curiosity of the daughter, for she contemplates marriage very soon. This is the first time that all the members of the family have understood the patient's trouble. Thus they appreciate the difficulties the case presented to the doctors. The family has a different attitude. They do not resent the doctor because the patient died but are grateful for the efforts made to save him.

As the conversation progresses, the wife asked what was the actual cause of death. "I cannot answer that with absolute certainty. What I have told you has been gathered from clinical impressions. A correct answer can only be given by making an examination." At this point new objections are raised by the family.

"Do you mean an autopsy?"

"Yes, all human beings have an obligation to each other to permit the examination of those who have died. It is only by this means that medicine has been able to treat disease and lessen human suffering. By such studies, on individuals who have gone before us, has it been possible for men of science to help this generation. Through the same means, medicine hopes to advance and further benefit persons in the future. In this way the average span of man's life has been increased twenty years. All I ask is for you to do your share by helping the medical profession in its effort to benefit mankind."

"Moreover, you are interested in the exact cause of death. This answer can only be given after this procedure has been performed. Information concerning this disease is important because of the possible effects it may have on your children's children. If there is any familial tendency to a particular disease, it should be discovered, so that measures can be taken to protect those children. In addition to this important fact, it aids medical knowledge by providing accurate vital statistics. This improves the ability of doctors to diagnose various diseases."

"An examination of this type will tell us if more than one disease was present. From a legal viewpoint the cause of death is important. This is especially true in the event of legal entanglements resulting in a negligence lawsuit. In a hospital, this procedure is performed by a specialist, so that his findings become a part of the deceased patient's permanent hospital record."

The doctor tells the family how medical progress has been delayed. "You must realize that because people have refused to consent to this procedure in the past, medicine did not advance as rapidly as it might have. If we had learned, by these same studies, to recognize the early stages of your father's illness, he might be with us now."

"Will it disfigure the body?" asked the wife.

"No, the examination is done similar to an operation. The incision is closed similar to an operative wound. This procedure assists in a more thorough preservation of the body."

"My father's illness was not unusual," remarks the daughter, "you will learn nothing new by an autopsy."

"That is not true. No one knows what can be learned in cases which seemed only usual."

"I do not think my husband would have wanted this done."

"You do not know that. How do you know that he would be unwilling to help another who was similarly afflicted?"

The question of religion is always brought to bear as a persuasive force against giving consent. It is strange to relate that the greatest opposition is found among Hebrews. This objection is typified in the son's statement. "Our religion forbids this procedure. We are orthodox Jews."

Such a contention is not true. Many eminent Jewish theologians have written against this misbelief. Rabbi B. L. Levinthal of Philadelphia has said: "I desire to state unquestionably that the dissection of a corpse is not prohibited under the Jewish Rabbinic Law, where a reputable physician believes that it is essential for the advancement of medical science. Where a postmortem examination may result in the discovery of the origin or cause of some serious disease, it is my firm conviction that thus to serve humanity is sanctifying rather than desecrating the dead." (This passage is quoted from F. C. Hammond's article which appeared in *Modern Hospital*, 25:333, 1925.)

Dr. Jacob Z. Lauterbach, a Jewish scholar, wrote the following in the *American Israelite*, November 19, 1925: "The supposition that a postmortem examination constitutes a disgrace to the human body has no real basis in Jewish literature. It is true that the Talmud assumes that to dissect and examine a dead body might be considered a disgrace to that body, which, of course, should be avoided. This, however, holds only in cases where it is done unnecessarily or for no good purpose. For in the same passage in the Talmud it is taken for granted that if such postmortem examination might possibly result in saving another man's life we should by all means dissect and examine the dead body, so that we may possibly avoid the loss of another life."

Dr. Charles D. Spivak wrote the following in the *New York Medical Journal*, June 13, 1914, as a summary of the Rabbinic Law on this subject:

1. Autopsies are not permitted when they are an indignity to the dead.
2. Autopsies are permitted when they are an honor to the dead.
3. Autopsies are permitted when a human life can be saved thereby, for instance, when there is present a sick man who suffers from the same malady from which the deceased died.
4. Autopsies are not permitted for purely experimental purposes, i.e., when the sick are not "before our eyes".

These distinguished religious scholars have offered proof indicating that religion presents no contraindication to the autopsy procedure. By quoting these literary references, doctors have successfully obtained consent to perform a postmortem on Jewish patients. When the nearest relative grants this permission the operation is termed a "consent autopsy".

This term distinguishes these postmortem studies from those performed by the coroner or medical examiner. These latter cases are autopsied by legal authority when any doubt or suspicion arises as to the cause of a person's death. Into this same category fall those deaths resulting from homicide, accident, or violence of any type.

The art of performing an autopsy is an old, but not an ancient practice. People of antiquity gazed with disdain upon the opening of the human body. Men possessed of intellectual curiosity, such as the philosopher Aristotle, satisfied their inquisitiveness by dissecting animals. In many European countries the dissection of human cadavers was prohibited. At the renowned Montpellier University, the seat of medical progress in the fourteenth century, only one postmortem annually was permitted by law. By legal stipulation the body was that of an executed criminal.

Medical records establish the first autopsy to have taken place in 1341. A professor at the University of Padua, Doctor da Foligno, describes the earliest written account of this operation. From that year forward great men have carried the art through the centuries, increasing medical knowledge as each age succeeded the other. In the nineteenth century the school of Vienna under the leadership of Professors Rokitansky and Virchow elevated the study to a vital position in medicine. Since the period of these masters many subsequent investigators have increased our understanding of disease. All this knowledge was possible because of postmortem study.

The greatest hindrance to the advancement of medical knowledge has been the persistent refusal of many persons to grant permission for a postmortem. Frequently a physician, in an effort to secure this consent, remarks that autopsies have been performed on some of the most famous characters in history. This statement is true. Among those who have been studied at the autopsy table are: St. Ignatius Loyola, Napoleon, Lincoln, Garfield, McKinley, Admiral John Paul Jones, Samuel Pepys, Dean Swift, King Frederick III of Germany, King George II of England, Sir William Osler and many other illustrious persons.

The average everyday person cannot appreciate how necessary, how valuable, it is to the medical profession to secure an autopsy. Our present ability to cure certain illnesses has been made possible only by autopsy study. No one should be criticized for granting such permission, but rather should be praised for their intellectual outlook.

Conclusion

This article is a plea for the understanding of the necessity for postmortem consent. Let the dead benefit the living, even as the dead before them benefited the deceased. If men of medicine can profit by this procedure sufficiently, the prolongation of life may be increased remarkably. This study has already permitted the alleviation of suffering and perhaps soon may eradicate many diseases from the earth.

It is hoped that a picture has been presented of the true problem attached to autopsy difficulties. It is further hoped that the necessity for this procedure, not only to science, but to the individual, is realized. If a better understanding and appreciation of the medical interest in autopsies is achieved, it is certain that the difficulties associated with obtaining consent for postmortem examinations will be lessened.

Kings County Hospital

Symposium on Surgery

IMPORTANCE OF LATENT HEPATIC DISEASE IN SURGERY OF THE GALLBLADDER AND THE BILIARY TRACT

ABRAHAM O. WILENSKY
New York, N. Y.

The equanimity customarily displayed during the course of operations upon the gallbladder and the biliary tract is on occasion disturbed by encountering changes in the gross appearance of the liver which indicate to the trained surgeon that a pathological condition had previously existed therein. The surgeon must then be able to integrate the indications of previous hepatic disease with the present changes in the gallbladder and biliary tract in order to be able to present to the patient the causal connection between the two, and the immediate and ultimate outcome to be expected.

The usual observable changes are those of some form of chronic productive interstitial connective tissue change. This phenomenon is secondary to preceding injuries of the liver parenchyma, the nature of which it is essential that one understand fully, and the causes of the latter include: deficiences in diet and in vitamin B; poisonous drugs (ether, chloroform, carbon tetrachloride, etc.); chemicals (phosphorus, manganese, copper, silica, etc.); condiments, spices and various food poisonings; and various products of metabolism. Alcohol especially has been incriminated but it appears that it functions either as an important adjuvant to other causal agents, or because of other chemicals incident to its manufacture or storage in charred barrels. Clinically, hepatic parenchymal injury is found in certain physiological states of which the important one is pregnancy, and in certain diseased conditions of which the important one is thyrotoxicosis. Bacterial infection also is a most powerful parenchymal destructive agent and a frequent offender.

All of these function by interfering with the nutrition of the liver cell and in this regard it seems that anoxia is a most important factor. Fatty and hyaline degenerations and necroses of the liver cell follow and eventually lead to replacement fibrillar connective tissue proliferation, arising sometimes definitely from the walls of the sinusoids and at other times from other undeterminable sources. The bundles of fibrous tissue either encompass groups of liver lobules in the form most often seen in the Laennec type of atrophic cirrhosis; or, less often, the connective tissue proliferation is an intralobular one with disruption of the cord structure of the liver lobule, as opposed to the perilobular one just defined.

Some degree of acute or subacute hepatitis is always present under these conditions. The discussion of the somewhat indefinitely used term "hepatitis" is beset by many difficulties. It must include hepatitis as a single entity, its very complex and diversified etiology, and its differentiation from the various forms of cellular change and degeneration. It is also very difficult to establish the recognizable point at which any of these anatomical changes reach the plane of clinical observation and recognition. The problem of cellular change, varying from purely functional abnormality to various grades of cellular degeneration and destruction, must be considered as opposed to actual inflammatory change. And in the field of cellular functional or morphological change, one must note the lack of evidence of any hyperfunctional or hypertrophic change, the difficulty of obtaining evidence during life of diminution in function and destructive change in cellular morphology, and the enormous capacity of the liver for compensatory effort and regeneration.

The forms of acute and subacute yellow atrophy of the liver are the potentially ultimate lesion to which all forms of hepatic injury and/or infection and/or other forms of similar hepatic disease may lead. In between the various mild and frequently unrecognized abnormalities and the classical, hyperacute and almost universally fatal acute yellow atrophy of the liver, all gradations of change and disability occur.

The initial stage of hepatitis may be clinically acute and promptly fatal. This group includes not only cases of socalled acute yellow atrophy, but also instances of a less violently destructive process which, latterly, have been classified under the generic term of "toxic cirrhoses." These are, perhaps, the only cases in which a single episode of liver injury occurs and repetitions of the injury are prevented by the immediate fatal outcome.

An equally acute onset with an almost equally marked clinical symptomatology may rarely be followed by an apparently complete clinical recovery. In the usual run of cases, this does not necessarily imply an equally complete anatomical healing and restoration of physiological function; and, in the present state of our knowledge, one may not lightly escape the thought, that, perhaps, no such complete anatomical and functional recovery ever occurs even after a single episode of injury or disease.

In other words, the liver damage may be so mild and ephemeral as to be unrecognizable unless one is on the lookout. In the latter cases, indications of the presence of the disease are to be found only in changes of liver function or in the appearance of an otherwise unexplainable jaundice. Any degree of jaundice occurring under such conditions is an indication of hepatitis even in the absence of any laboratory data.

After repeated episodes—and this repetition of episodes is undoubtedly the rule—latent anatomical changes and mild disturbances of physiology are present. The possibility of such increasing latent damage in structure or function, which may gradually progress over many years until easily recognizable clinically, and

until hepatic insufficiency eventually supervenes, is shown by those rare instances of cirrhosis in which a story of one or more previous episodes can be elicited. Such observations have been reported by Bloomfield, Wilson and Goodpasture, Connor, Abramson, Krarup and Roholm, and Whiteacre and Fang. Occasionally, too, the repetitions of these acute or subacute episodes, which, in between, subside again into latency, have been clinically observed; and such a cycle has been repeated a number of times before the patient dies. Bloomfield points out the analogy between these long drawn out liver cases to the course of glomerular nephritis (Addis).

The differences in duration and in the manner of the development of these parenchymal injuries and their replacement fibrosis, in the symptoms, in the suddenness and dramatic effect of the clinical manifestations, and in the rapid culmination in death; or in the more protracted course with apparent temporary improvement but, nevertheless, slow progression to the terminal stages; or in the repetition of mild episodes with incomplete restoration to the normal in the remission periods and the passage into the terminal picture, seem to have important relations to the size of the dose of the causative agent to the number and frequency of its repetitions, to the time limit in which the latter is delivered, and to various forms of preceding sensitization of the body to diverse toxic bodies. When the toxicity of the causative agent is sufficiently powerful and the latter is applied with sufficient intensity, the resulting liver damage is sufficiently large, so that immediate death can and does occur, as in the cases of acute yellow atrophy of the liver or in those dramatic fatal cases of the hepatorenal syndrome which sometimes occur in the postoperative period after lightly undertaken operations for simple conditions apparently devoid of any undue risk and danger.

When discovered during the course of operation for gallbladder or biliary tract disease, the surgeon, however, is faced by a relatively old form of liver disease in which repeated episodes of hepatic cell injury and/or infection had already caused a chronic diffuse interstitial hepatic inflammation, the essential features of which are: degeneration and destruction of hepatic cells, regeneration of cells from those remaining, and subsequent attempts at repair marked by proliferation of connective tissue. To the surgeon the latter is the sole visible evidence of any such preceding hepatic injury or disease usually as some form and degree of cirrhotic changes, e.g., hobnail liver. Nevertheless, the conception or assumption that this is always synonymous with cirrhosis, as ordinarily understood, is somewhat erroneous even if it is so generally accepted.

To the surgeon the importance of all of this lies in the degree of hepatic damage which is present. This necessarily varies a good deal, but, in general, it is more or less proportional to the amount of anatomical change which exists. The amount of reserve which remains, and from which one may attempt to evaluate the prognosis, is not usually apparent, demonstrable or measurable.

The best and most competent idea of hepatic damage must still be based upon more or less purely clinical grounds. Many chemical and biological tests based on metabolic change have been tried out and found not entirely satisfactory. In most cases, hepatic function is demonstrably maintained by compensatory effort: bile is still present in the stool; there is no impairment in glycogenesis; no evidence of failure to deamidize the amino acids; urea formation is unhampered; and a progressive increase of nitrogenous products in the blood is not observed. Nor is there present in the early cases the clinical picture of a well established disease, marked by abdominal distention, vomiting, rise in temperature, oliguria, appearance of albumin, casts and red cells in the urine, increase of residual nitrogen in the blood, bleeding into the mucous surfaces, blood in the vomitus and the stool, and ascites or enlargement of the spleen.

A much greater degree of invisible pathological change exists when jaundice appears. The change is always physicochemical and indicates severe changes and a state of emergency. When superimposed on any of the demonstrable changes mentioned in the preceding paragraph, it indicates a long standing, perhaps an irreversible, pathological condition. In many cases it indicates a terminal stage of the illness, and in any case a lack of hepatic reserve approaching the absolute.

Commonly such complex condition is associated with secondary renal change (hepatorenal syndrome) which I have described and discussed on a previous occasion. It is impossible to say to what stage the hepatic disturbance must progress before clinical and/or laboratory evidence of renal involvement can be obtained. However, as I have pointed out, the renal mechanism furnishes a satisfactory means of detecting any preceding change in the liver; any significant change in the kidney could, therefore, in properly selected cases be employed, other things being equal, as a measure of any otherwise unrecognizable disturbance in the liver. This is the value of tests of renal function in the presence of liver disease. When the manifestations of this syndrome appear, one must assume that they represent a continuation of the preceding functional and anatomical pathological process. The development of the picture is rather slow, although usually, as complete dissolution approaches, an apparent hastening of the process and a more rapid development seem to take place. When these alarming symptoms appear after an operation, it is probable that a measure of bacterial infection has been introduced, which, superimposed on whatever else has preceded, becomes the proverbial straw which breaks the camel's back.

Once this train of functional and/or anatomical disturbances begins, other factors come in to play, such as fever, shock, autolysis of tissue, anoxemia, anhydremia and azotemia. All of these aid and abet the primary agents or even each other, by producing conditions which are capable of creating, or are found associated with similar cellular degeneration in these parenchymatous organs. As must be apparent, the amount of overlapping in the various manifestations is enormous. A vicious circle, therefore, is produced, and the primary injury is enormously accentuated.

In practical surgery, usually the unexpected changes presented during operation indicate a fairly advanced stage of the previously existing disease. Nevertheless, recovery can occur from the immediate form of illness and from the operative insult. It should, however, endow us with caution in making any prognostic statement as it does not preclude recrudescences of injury with further advance of the process to an irreversible

stage. In addition, it must be understood that the interstitial fibrosis itself may be productive of secondary effects equally as bad, if not worse, than the original injury. But, in any event, it must be understood that the chances are more than good that there will be further symptoms and that the patient will not be entirely well; and that there may be further disease eventually culminating fatally. On the other hand, when the evidences of previous disease are so demonstrable, unexpected and frequently serious and even fatal events follow in the immediate postoperative period, or even shortly after the discharge of the patient from the hospital, which is only understandable because of the preceding liver injury and damage.

In some instances it is possible to suspect before operation that previous liver injury has taken place as a consequence of which there are interstitial changes in the liver. When these are suspected and, possibly, corroborated by some of the tests of liver function, it becomes necessary to revise any previously held opinion regarding the risks of operation. The suspected changes might very well form serious objections to the performance of any operation of any elective nature. In compulsory operations they might indicate the employment of different forms of anesthesia, and a change in the usual operative technique or procedure, which might help to obviate or lessen the immediate effects of the operative trauma, or the effects of any resultant postoperative complication or event. Of the available precautionary measures, an adequate supply of carbohydrate; especially an adequate supply of proteid; a sufficient supply of vitamin B factors, and resultant improvement in the general nutrition are most important.

12 East Eighty-Seventh Street

EXCISION OF ANKYLOSED SESAMOID OF THUMB

HENRY MILCH
New York, N. Y.

Affections of the sesamoid bones of the thumb are of relatively infrequent occurrence. Fractures of the sesamoid have occasionally been reported, but true inflammations have not come to my attention. This is the more remarkable when due consideration is given to the frequency of infections in the thumb. In those cases in which the flexor tendon has sloughed away as a result of infection, the limitation of motion can be readily explained. On the other hand, where the presence of the tendon can be assumed, limitation of motion most frequently occurs from ankylosis of the interphalangeal joint or from capsular fibrosis. In the case herewith reported, limitation of flexion of the thumb occurred as a result of a postinfectious fusion of the medial sesamoid to the head of the metacarpal bone of the right thumb. Excision of the involved sesamoid resulted in restoration of almost normal power of flexion and opposition of the thumb.

Case Report

Adelaide W., aged forty-two, was first treated for a trigger thumb in March 1937. Following a relatively simple incision of the tendon sheath, this patient developed a severe infection of the right hand and forearm, which was brought under control with much difficulty and only after repeated operations. After the subsidence of the inflammatory reaction, the patient was left with a marked disability, due to stiffness and flexion contracture in all of the fingers.

In October 1937 the patient was readmitted to the hospital for manipulation and subsequently for capsulotomies on the little, ring, and middle fingers. This was followed by prolonged hydrotherapy, massage, and manipulation, with but slight improvement.

In March 1940, the patient insisted that something further be attempted to rehabilitate her disabled right hand. She complained of pain, especially in the thumb, and inability to grasp objects using her thumb. Examination disclosed a marked limitation of motion at the metacarpophalangeal joint, particularly in regard to flexion. Opposition was impossible, and flexion at the interphalangeal joint was limited to thirty degrees. (Fig. 1A).

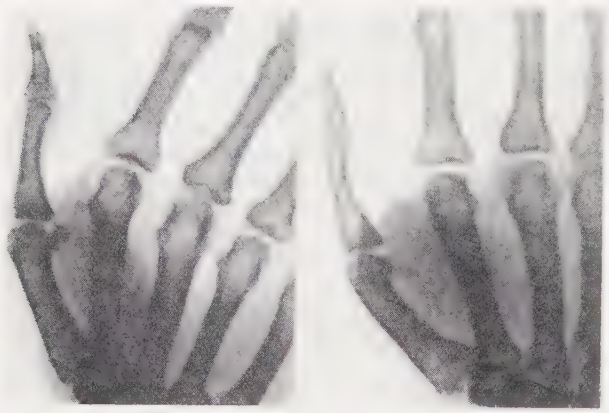
Though the possibility of a capsular contracture could not be entirely excluded, examination of the thumb conveyed the impression that the limitation was due, not to soft tissue, but to a bone block. The roentgenogram (Fig. 2A) was reported as showing "a narrowing of the metacarpophalangeal joint and a minimal irregularity in the contour of the head of the metacarpal bone". However, more detailed study of the films disclosed a definite irregularity and lipping of the anterior aspect of the metacarpal head, with an irregularity and mottling of the adjacent sesamoid. It was noted that the space normally present between the sesamoid and the metacarpal was absent, and that, indeed, there appeared to be a bony fusion between the juxtaposed bony surfaces. Since it could not be determined whether both, or which one of the two sesamoids were involved, an exploratory operation was undertaken.

A B

Fig. 1.—A. Right hand, before operation; patient unable to oppose thumb to little finger. B. Complete opposition of thumb after operation.

On March 26, 1940, under local anesthesia, this was

carried out. An incision one and one half inches in length was made over the radial or volar aspect of the thumb, and a line of cleavage was established between the abductor pollicus brevis and the superficial head of the flexor pollicus brevis. The tendon of the latter muscle was followed to its point of insertion at the base of the proximal phalanx. The sesamoid bone was found near the insertion of the latter muscle and was quite



A B

FIG. 2.—A. Roentgenogram of thumb before operation. Note irregularity in outline of sesamoid, and head of metacarpal of thumb. The sesamoid seems to be fused to the under surface of the metacarpal.
B. Postoperative. Both sesamoids have been removed. Note the plateau-like surface on the metacarpal left after disruption of the fusion and removal of the sesamoid.

freely movable. There was apparently no attachment between the sesamoid and metacarpal head. The sesamoid was removed, but without any apparent improvement. Motion at the metacarpophalangeal joint, either active or passive, could not be made to exceed that obtained prior to the operation. The wound was closed by interrupted skin sutures.

Thereupon, a second incision one and one half inches in length was made in the web of the first intermetacarpal space. This was carried down into the hand, exposing the tendons of the adductors and the deep head of the flexor brevis pollicus. The tendinous insertion of the latter muscle was exposed with considerable difficulty. The sesamoid contained within was found fixed to the metacarpal head on its volar aspect. The bony fusion between the two bones was broken by means of a periosteal elevator, and the sesamoid was dissected free. Upon its removal, this sesamoid was found to be considerably smaller than its radial mate. The metacarpophalangeal joint was now forcibly manipulated, so that full opposition of the thumb to the little finger was possible. Immediately after this, the patient was able actively to oppose the two fingers. Since the overhanging lip on the metacarpal head did not seem to interfere with this motion, no effort was made to remove it. The wound was closed in layers and a simple compressive bandage was applied.

The postoperative convalescence was uneventful, and the wounds healed by primary intention. As soon as the patient could tolerate the pain, active motion of the thumb was begun. The roentgenogram revealed complete removal of both sesamoids (Fig. 2B). About the middle of April the patient was discharged and was referred to the out patient department for physiotherapy. Examination some six months after operation revealed a marked improvement in the function of the hand as a whole. There was no tendency toward recurring stiffness of the thumb. The power was good and the function of the thumb was considered almost normal (Fig. 1B).

The good result obtained in this case naturally suggested the possibility that in other conditions, such as arthritis, the limitation of motion might similarly be due to involvement of the sesamoids. As in the cases of patellar resection, excision of the sesamoid might prove valuable in improving function. Because of the anatomical configuration, excision through two small incisions appears to offer the best surgical approach.

225 WEST EIGHTY-SIXTH STREET

BREAST ABNORMALITIES AS A WARTIME HANDICAP

JACQUES W. MALINIAC
New York, N. Y.

The mammary glands, or breasts, have furnished an unexpected and little known cause of distress for some women volunteers for the war effort. Although artists and sculptors have immortalized the beauty of the normal breast, and its place in religion and legend has been prominent, this important organ has been sadly mistreated in certain periods through the dictates of fashion or prudery. Heredity and the unpredictable factors of the endocrine system are also responsible for malformations such as are being increasingly disclosed at present in wartime examinations.

In numbers unparalled in history, American women are now being employed in work which demands physical activities heretofore unknown to them. Girls in slacks, dungarees and coveralls carry on in war plants. The Wacs, the Waves, the Spars and Marines are ready for whatever arduous duties may be assigned them It has been estimated that eighteen million women will be employed in industrial work or the armed forces during 1943 and more than that number will ultimately be needed.

In responding to the call for service these women leave behind them the privacy of normal living. Nothing can be concealed or camouflaged. Many have been startled into the realization that defects which they had not previously considered important keep them from wearing the uniform they desire or are a serious detriment to their best efforts in factories and other forms of war work. Physical fitness in all its ramifications has taken on supreme importance.

Women who want to enlist, and some who have passed prescribed examinations, find abnormalities of the breast a definite handicap. Certain war work makes demands they cannot fulfill. In extreme overdevelopment of the breasts the strain of calisthenics and marching may be almost unbearable. Uniforms are re-

vealing; work clothes make the wearer conspicuous. The patriotic young woman, with an obvious mammary deformity, feels herself in the discard and much good work may be lost to the nation from this cause. Even when it is possible to perform the required physical duties, the mental suffering may be so great as to interfere with productive activities.

There are various causes for imperfections of the breast. As already mentioned, fashions have always been a factor in breast health. Back in sixteenth century Spain there seemed to be the same demand for the flat boyish figures that prevailed during the last war: the breasts of very young girls were covered with tin plates to retard their development. In Italy, on the other hand, massive bosoms were the mode and breasts became so fashionably heavy that they had to be held up by special supports.

Even today, shy young girls, embarrassed by their rapidly swelling breasts, sometimes use tight bandeaux which do injury at the start of development. A too tight brassiere, like the tin plates of old Spain, may, by constriction, distend the fibrous structures which nature has provided as a suspensory apparatus. The breast droops and sags, losing its beauty of form. At no time are a mother's influence and tact more important than at puberty. Fortunately for the girls of today present fashions outline the breast in a normal contour and the evil effects of compression are far less evident than twenty years ago.

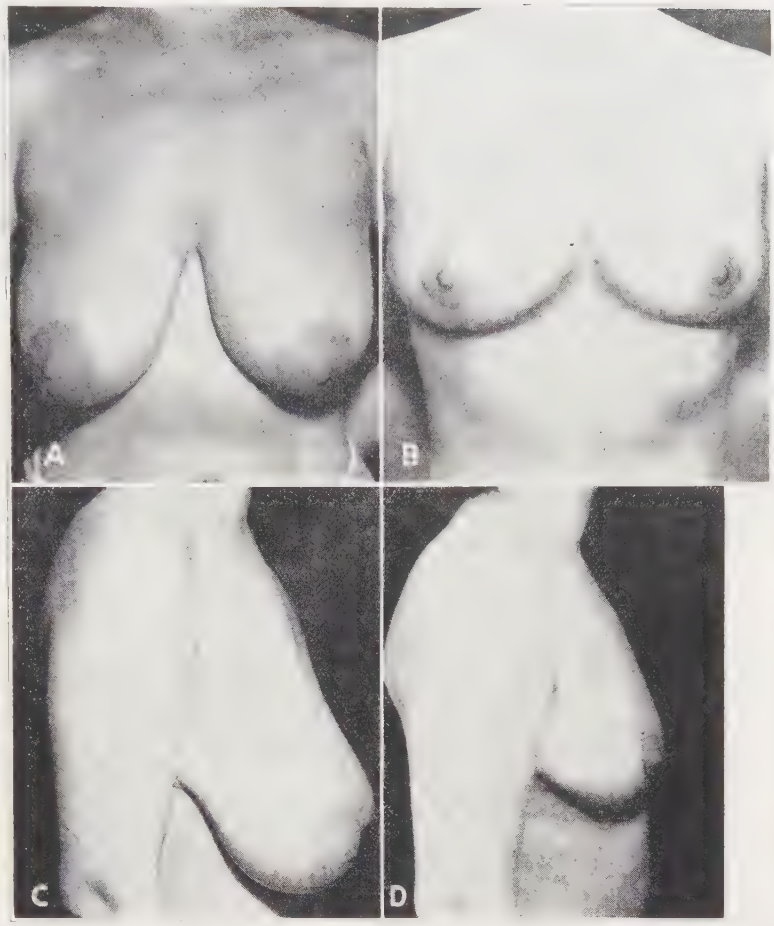


FIG. 1.—A and C show the hypertrophic and pendulous breast occurring in a married woman of twenty-eight which greatly interfered with her profession as a pianist. Repair was done by the two stage procedure. In B and D is shown the final result a few weeks after the second stage of the operation.

Besides fibrous and connective tissue, the breast is rich in fatty tissue. If diet removes so much fat that a normally rounded breast droops like an empty sack, it is neither beautiful nor healthy. Normal bodily weight is always a good criterion of development. The condition of atrophy, which involves both gland and subcutaneous fat, comes about naturally in old age, but the withering of the breasts in youth is a serious matter, for the sensitive structures involved hold in trust one of the female body's most important functions —infant feeding.

Breast abnormalities include the conditions known as true hypertrophy, fatty hypertrophy, breast tumors and asymmetry. True hypertrophy, due to a marked increase of glandular structure and a slight increase of fatty tissues, is rather rare. Starting between the ages of fourteen and sixteen the expansion is a first barely noticeable but devolps rapidly and may reach enormous proportions within a few months. There may be accompanying disturbances in the general health.

Fatty hypertrophy is the common type of breast irregularity and usually has no relation to general overweight. In fact, it frequently occurs in otherwise slender persons. The breasts become enlarged at an early age and increase gradually.

Nonmalignant breast tumors may also cause enlargement. These vary in size and number, often existing in multiple groups.

Asymmetry is a less common abnormality. This does not refer to the slight variations which exist in the breasts of nearly every woman, but to the conspicuous enlargement of one breast.

In hypertrophy acute discomfort is experienced because of the weight which must be carried about. Every time the arm is lifted above the head the strain is intensified; stooping is difficult; the whole body mechanism rebels at this excess baggage. Heavy breasts impede activity: a general sluggishness may prevail; the circulation may be disturbed, and there is often the concomitant annoyance of abnormal perspiration.

Asymmetry, when pronounced, is a distressing and conspicuous defect. The breasts are unlike in weight and contour. In some instances one of them may be entirely missing. Such extreme cases are comparatively rare and are congenital. Here the deformity invariably causes great mental anguish.

The natural inquiry as to what causes these malformations cannot be fully answered. It has not yet been definitely established why fatty hypertrophy appears in certain individuals. Heredity unquestionably has something to do with it, for enlarged breasts are fre-

The illustrations used in this article are published by courtesy of the *American Journal of Surgery*. Figure 3, showing the technique of the operation, has been omitted for lack of space.

FIG. 2A.—A girl, aged twenty, with unilateral right breast hypertrophy and ptosis. Asymmetry became noticeable at early puberty. The right breast was about twice the size of the left and markedly pendulous, extending to a level of about three fingers above the umbilicus. The left breast was approximately normal in size but moderately pendulous. The right areola was about twice as large as the left, which was also oversized.

quently seen in successive generations. In some cases, such as excessive overweight, the elaborate endocrine system is responsible. A relation between the mammary glands and the ovaries has been definitely established and it is known that the changes which occur in the breast at puberty are affected by the hormones of internal secretion. In all probability an excess of these hormones abnormally accelerates breast development. In considering treatment it is essential that this cause be kept in mind.

Injury may also be responsible for mammary malformation. Tight brassieres and repeated lactation cause deterioration in some cases. Prenatal maldevelopment may be a factor in the production of asymmetry.

Because the breast is closely allied with sexual emotion, a false shame very often exists and this attitude prevents examination and treatment under ordinary conditions. Girls who undress in barracks and tents have no privacy, however, and suffer from comparison with their fellows because of even minor breast abnormalities. In civil life they could forego bathing suits and formal dress. In the military services there can be no evading routine. Parents are sometimes lacking in understanding of the extreme sensitiveness of girls in this regard. One woman who had been married eleven years confided that she had never removed her brassiere in her husband's presence because of a breast malformation.

In the rare cases where an abnormality of the breast is revealed in the physical examination of a male draftee, it may prove a great humiliation. Like the young woman in service, he no longer has the protection of personal privacy, and this public exposure may affect him disastrously. Fortunately, such malformations, like those in women, can be greatly improved by reconstructive surgery. A young man who had suffered severe mental depression between the ages of fifteen and thirty, refusing to take part in sports or to undress in the presence of his companions, because of his feminine breasts, finally faced the cause of his sensitiveness and submitted to operative repair. The results were most gratifying and the improvement in his morale marked.

Reconstructive surgery has been effectively employed in the correction of breast abnormalities since the beginning of this century. During this period steady progress has been made and surgical methods are at present available for the satisfactory correction of most deformities.

Unfortunately the general public knows very little of what has been done: the fallacy that the breast is too sensitive for surgical repair has aroused unwarranted fear in many quarters. One argument that has been advanced is that operation may destroy the biological function of the breasts. However, in pronouced hypertrophy the breasts are usually incapable of normal lactation. Surgery cannot therefore be accused of depriving the breasts of this function. It can, however, restore more normal contour and improve posture, thereby benefiting the health and relieving mental suffering. This is particularly true in asymmetrical breasts.

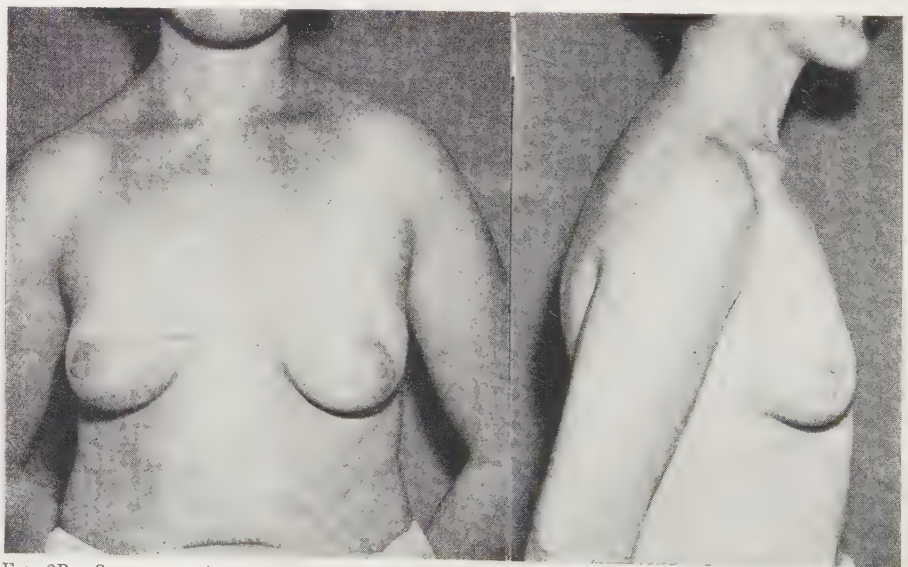


FIG. 2B.—Surgery consisted of unilateral repair of the hypertrophic breast by transportation of the reduced areola and gland. Because of the shortage of skin covering caused by the excessive size of the areola, the lower incision had to be placed above the submammary fold. This permitted the lower portion of the gland to be covered by skin from the posterior aspect of the breast.

Plastic repair of the breast should not be undertaken unless overdevelopment or irregularity of contour is so marked as to constitute a conspicuous deformity and interfere with normal social and work-a-day duties. Each case presents an individual problem to be solved by the surgeon's experience in this field. Where surgery is not indicated and a morbid attitude persists psychiatric treatment should be sought to get at the root of the matter. Brooding in secret inevitably produces a supersensitive attitude which can only be alleviated by frank discussion. If physical help can be obtained it should be given a chance, but if an experienced surgeon advises against operating, then every effort should be made to destroy the supersensitive and abnormal fear that the imperfection may be discovered.

In properly selected cases, surgery performed according to proved techniques gives very satisfactory results.

106 East Seventy-Eighth Street

WAR INJURIES TO THE SPEECH TRACT

CHARLES H. VOELKER

Stillwater, Okla.

Man is a visual animal in war. His manipulation of his visual organs during combat is dependent on a scaffolding which supports, and in its action exposes, the speech tract. Except for a metal covering over the top of the skull, protecting the thinking aspect of speaking (1), the speech tract is conspicuously unprotected.

Although the statistics of war, on account of their wording, conceal the history of the speech tract, it is to be expected that injuries to this organ will be among the most common, and certainly the most vital, incurred. In this conflict, it is to be expected that the most frequent cause of death in action will be drowning, resulting from internal bleeding down the speech tract to the lungs so that the victim drowns in a sea of his own blood. Thus, injuries to the speech tract will probably account for most of the deaths on the field of battle. This is to be expected even with the new mobile field hospitals, because of the greater number of men involved, and their greater dispersion as a result of the rapidly shifting battle fronts of mechanized warfare.

The sources and types of mechanical injuries to the speech tract are peculiar to this war. Although this is a war of hand to hand fighting, it is not a war with sabers, which were particularly dangerous to the speech tract, but more closely resembles primitive and ancient spear wounding in the effect of stabs. The implement used is the bayonet. Yet, it is not expected that it will be a frequent cause of injury to the speech tract above the jaw because of the highly mobile defense reflexes protecting this region, and because, in bayonet fighting, this area is not considered a practical military objective.

The neck region is vulnerable to bayonet attack but not the speech tract in the neck. In spite of the considerable force resulting from the eight pound rifle and the bodily and muscular thrust, the speech tract in this area is suspended in such a way that it is pushed aside rather than entered by the bayonet.

Leverage movement of the bayonet in the chest region results in great loss of blood from the external and internal lacerations, but the speech implications are negative provided the victim withstands the wound.

Discounting direct hits by large artillery projectiles, which result in fatal rather than speech damage, injuries to the speech tract result from fragments travelling in radial trajectories. These fragments occur in the bursting of the heavy artillery shells, trench mortar shells, aerial bombs, and assorted missiles dislodged from the point of impact. These fragments travel at initial velocities higher than rifle or machine gun projectiles, and lacerate rather than push aside the vulnerably exposed speech tract. Damage of this sort, resulting in gaping gashes and contusions, is expected to be greater than in any previous war, and is expected to result in damage to all portions of the speech tract.

Piercing of the speech tract by projectiles of small calibre and high velocity is a special attribute of this war. Except in the most recent conflicts, rifle balls were of lead, and in the mouth region resulted in extensive damage because they were easily deformed in shape by impact, especially with bone, and as a result, they created wounds of considerable size internally and at points of exit. In this conflict, gunshot wounds will be different. The high velocities attained by rifle projectiles of small calibre will result in wounds very small at points of both entrance and exit. The projectiles of modern firearms are more apt to remain spinning on their long axis. Their lead is heavily jacketed and even the core is steel, so that they do not deform enough to result in other than very small wounds internally in the mouth region. Nevertheless, it is unsafe to assume that these projectiles will travel in a straight line between points of entrance and exit.

However, in the neck region, the modern firearm is very much more dangerous to the speech tract. Whereas the low velocity lead ball pushed aside the suspended larynx and windpipe, the modern high velocity projectile pierces the speech tract. The internal bleeding may result in drowning. And when cartilage, such as in the larynx, is damaged, even slightly, it may never be rebuilt in healing. Instead, the whole cartilage may disappear.

Injuries in the chest region from high velocity, low calibre projectiles, if not fatal, are not of prime importance to speech.

Thus, in this conflict, it is expected that, 1, stab wounds will be a reversion to ancient and primitive types of wounds; 2, the fragments of large calibre shells, and 3, the impact of small calibre shots will have such high velocities that the lacerating and piercing injuries, respectively, will be different from those incurred in previous wars. The effects in the mouth region and the neck region are distinct and must be differentiated.

References

1. Voelker, C. H.: Speech Correction and National Defense, Neuropathic Speech Disorders. *American Journal of Orthopsychiatry*, 12:633-641 (Oct.) 1942.

THE ACCEPTED TREATMENT FOR MALIGNANCY OF THE UTERUS A THERAPEUTIC ANACHRONISM

J. W. KENNEDY
Philadelphia, Pa.

We take the position that there is no location in the female where malignancy is so amenable to treatment and cure as in the uterus. We further contend that malignancy can be more uniformly recognized in the uterus at a period when proper treatment will produce more brilliant results, than when located in any other organ.

We have a right to expect the recognition of malignancy of the uterus at a time when the growth is still confined to this organ and therefore ranks as being in the first or second stages of malignancy. It is for this reason we take the position that we are not so much discouraged regarding the proper management of malignancy of the uterus as we are embarrassed by the accepted teaching of the profession. Nothing has been more unfortunate than the attempt to be ultrascientific in the choice of treatment of malignancy of the uterus, depending upon the histopathology of the cellular type of malignancy. When ultrascientific methods of diagnosis and treatment come into conflict with practical methods which have been backed up by prolonged experience; discard the ultra methods and endorse that which has stood the acid test of experience. Although we recognize different degrees of malignancy, in treatment we are dominated entirely by the extent of the growth and not its histopathology. The value of the laboratory is not in the balance for refutation, but superlative degrees of dependence cannot be placed upon ultrarefinements in histopathology, and this is emphatically true when dealing with a glandular organ, such as the suspicious uterus which permits removal.

Our contentions in this paper are applied to malignancy of the uterus in the first and second stages of the growth, that is, when the involvement is still within the confines of the uterus. We take the position that when malignancy of the uterus has been diagnosed, the organ has lost its right of residence and should be removed in all cases. The value of the uterus must be based upon its fertility, and when once proved malignant, it has lost its value. Certainly the malignant uterus should never be permitted to become pregnant. It is the experience of all authorities that pregnancy will rekindle the smoldering carcinoma of the uterus and light up the growth to a rapid and fatal termination. Therefore, there remains but one deterrent to its removal, namely, the mortality and morbidity of hysterectomy.

We advocate vaginal hysterectomy by the clamp method in all these cases. The operation has a mortality of one, or a fraction of one percent, depending much upon the constitutional complications in any particular series of cases.

In contrasting the relative merits of any type of treat ment, the uterus remaining, with that of hysterectomy, a final word must be said concerning the type of the operation performed. Operators who have not had an extensive experience with removing the malignant uterus by the clamp method are in no position to pass judgment upon the relative merits of hysterectomy as compared with other methods of treatment, the uterus remaining. If it were not for the superior results of the vaginal hysterectomy clamp method as opposed to any type of hysterectomy by the ligature method, we would not be advocating vaginal hysterectomy for malignancy of the cervix and fundus of the uterus.

We feel that the greatest anachronism in the treatment of malignancy in any organ of the body is seen in the feeble efforts endorsed by the profession in today's management of the malignant uterus. For over sixty years, the late Joseph Price and I have tried to give the message that the slough incident to the crush of the broad ligaments by the clamps and the slough of the unsutured vaginal fornix produce a much more radical removal of parauterine structures than is evident at the time of the operation; thus its recommendation in malignancy of the uterus.

We shall not enter here into a detailed discussion of the many virtues of the clamp method of vaginal hysterectomy; this has been done elsewhere, to some extent, in a monograph and the technical steps of the operation fully illustrated.

Why do we perform a biopsy? Is it to save the life of the patient or to save the uterus? If the biopsy is to save a sterile uterus its virtue is negligible. If it is to save the life of the patient, we demand accuracy.

If you remove one-tenth or one-twentieth of the circumference of the cervix and send the specimen to the laboratory for examination, what is the percentage of accuracies? Who is responsible for the nine-tenth or nineteen-twentieth of the cervix which is not submitted to the pathologist?

We curette the uterus and leave one-fourth, or an indefinite amount of mucous membrane intact and unexamined. Who is responsible for the tissue unexamined? Certainly not the pathologist. Here we are gambling with the life of the patient and the stake put up is a sterile and useless organ.

One of the most distinguished pathologists in America says that over thirty percent of the specimens sent to the laboratory are not to be relied upon, and another internationally known pathologist says that the experienced clinician will be about as accurate in recognizing malignancy of the uterus from physical signs and clinical history as the laboratory report from specimens examined.

It is time we challenge the insanity of uncertainty seen in the teaching of treatment of malignancy of the uterus and endorse measures which are commensurate with the fatal condition.

The treatment of malignancy of the uterus must be discussed from the viewpoint of relative values, and this does not admit of any uncertainties as to the means of diagnosis, the value of the uterus, mortality, complications, and postoperative history of the patient incident to the treatment. All of these values have been determined to a satisfactory conclusion.

What is the value of the uterus? In several thousand vaginal hysterectomies performed by the late Joseph Price and myself, not over one-third of one percent of the uteri removed could have become pregnant. What is the potential danger of permitting the malignant uterus to remain even though the accepted treatment may seem to have cured the malignancy? The uterus remaining, even after five years, from fifteen to twenty percent of the patients will die from malignancy in the succeeding five years. No longer can we teach that five years is sufficient time to judge of the return or freedom from malignancy of the uterus.

Following our vaginal hysterectomy clamp method, if there has been no recurrence of malignancy at the end of two years, we have never seen a recurrence.

What is the price (mortality and morbidity) of vaginal hysterectomy? In over sixty years it has remained one or a fraction of one percent in the Joseph Price Hospital.

The vaginal hysterectomy clamp method has the most uneventful and splendid postoperative history of any major operation of our experience. In several thousand cases we have never reopened an abdomen on account of a postoperative complication following vaginal hysterectomy. Today numerous papers are written detailing a series of postoperative complications from the treatment of malignancy of the uterus by radium. No longer can it be said that hysterectomy has a higher primary mortality than the treatment of malignancy by radium and x ray.

In our investigations, we must travel back over ten years with the patient who has been treated for malignancy of the uterus; and world figures would show that somewhere between twelve and twenty percent of women who had a malignant condition in the uterus are living and free from the condition, the uterus remaining. We are in a position to say that no longer can early malignancy of the uterus challenge hysterectomy, nor can any operator who has not used the clamp method of vaginal hysterectomy denounce hysterectomy for the first and second stage of malignancy. The very low mortality and the extensive removal of parauterine structures incident to the slough from the clamps, place it preeminently as the treatment for early malignancy.

The many sterling qualities of the vaginal hysterectomy clamp method, such as the low mortality, splendid postoperative history and broad field of usefulness, permits its endorsement as a prophylactic procedure, which, after all, is the trump card in the treatment of uterine malignancy.

In over one hundred cases in women of advanced age, seventy years or over, where we have use the vaginal hysterectomy clamp method for prolapse and repair operations, we have found fundal malignancy where there had been no evidence of any growth. We have never had a return of malignancy in any of these cases.

You cannot challenge all of these sterling qualities of vaginal hysterectomy as we have seen them by an endorsement of the inaccuracies from the viewpoint of diagnosis and accepted treatment of the indwelling malignant uterus. Certainly, never curette the sterile uterus for diagnostic purpose, if there is the least evidence of a malignant fundus.

We have never had a return of malignancy of the fundus of the uterus following the vaginal hysterectomy clamp method when there had been no involvement of the peritoneal coat at the time of the operation. Who can endorse cutting into a malignant growth with the idea of curing it? Yet the profession closes its eyes and curettes a fundal malignancy for diagnostic purpose.

If there is one instrument in the armamentarium of the surgeon that he can afford to discard, it is the curette. It has killed more women than it has saved. If the surgeon had the endometrium spread out before him, he would rarely rake its surface with the curette either for the purpose of biopsy or as a therapeutic measure. The malignant cell has no respect for the diagnostic intention of the surgeon and travels on its way to its metastatic destination. To investigate in malignancy in this manner often means to kill the patient, and this is true with a vengeance in uterine malignancy.

Our treatment in all cases of the sterile uterus, where there is suspicion of malignancy, is first to cauterize the cervix and follow immediately with vaginal hysterectomy clamp method. We have done away with the electric cautery and have substituted a small Bunsen burner which always works and gives any amount of heat in a few seconds. We have half a dozen plumbers' soldering irons of different sizes with which we cauterize the cervix in all of our vaginal hysterectomies.

In all malignant conditions we completely destroy the cervix by the cautery before we begin the hysterectomy. This is most important and one needs a hot cautery to char the structures quickly and thoroughly. The cautery must be brought back into use.

The extensive use of the cautery in all of our vaginal hysterectomies of course completely destroys the cervix and thus makes the structure useless for laboratory work. This is a credit to our radical treatment of the suspicious uterus, which of course goes uncredited and unrecorded. We are positive we have removed hundreds of malignant uteri for which the operation has been given no credit for the cure of the malignancy. This is a value that must be considered in the general summing up of the therapeutics of the malignant uterus.

Probably ninety-five percent of the malignant cervices which are destroyed by the cautery would remain free from malignancy even though the vaginal hysterectomy was not immediately performed. The last word in the treatment of malignancy of any glandular organ which permits removal will not be radium or x ray, but it will be early surgery. The fertile uterus rarely becomes malignant at least at an age where pregnancy is expected and welcomed. We cannot accept inaccuracies in diagnosis and treatment of malignancy in a useless organ which permits removal with such excellent results.

In the monograph referred to above, we have illustrated the function of the clamps in determining the extent of possible or potential malignant structures which are removed by the clamps as a slough. It is this factor which justifies us in the choice of the vaginal hysterectomy clamp method in all conditions where malignancy may be lurking within the confines of the uterus or parauterine structures.

It is impossible for any operator to give accurate statistics in the treatment of the malignant uterus that may be based upon the extent of involvement which is always an unknown factor. If the uterine malignancy is truly confined to the organ and therefore within the first and second groups or stages, if the cautery is first used as above indicated and immediately followed by the vaginal hysterectomy clamp method, the operator will have living, after ten years, between ninety-seven and ninety-eight percent of the patients treated. The cautery prevents operative implantation of malignancy and has much to do with the splendid results which follow its use. The cautery does not destroy the malignancy only, but aids in cleaning up the operative field.

The very low operative mortality of vaginal hysterectomy and its splendid postoperative history has challenged all inaccurate methods endorsed by the profession for the diagnosis and treatment of the malignant uterus. The relative values of investigations and their accuracies or inaccuracies and the endorsed treatment of the malignant uterus, if the uterus is to be saved, must give us ninety-nine percent of accuracies, as it costs but one or a fraction of one percent to remove the organ. This and this alone is the problem which faces us in dealing with the malignant sterile uterus.

The profession has not met the challenge. When the time arrives that complete extirpation of the uterus, such as vaginal hysterectomy, is reduced to one or a fraction of one percent, the solution of the treatment of malignancy of the uterus should be forcibly evident.

(Concluded on page 554)

EXTENSIVE CORNEAL ULCERATION FOLLOWING REMOVAL OF A FOREIGN BODY

CHARLES A. TURTZ
New York, N. Y.

A foreign body embedded in the cornea is one of the most common injuries of the eyeball. While some degree of skill is required in its removal, yet in many instances, this is performed so awkwardly that considerable scarring of the cornea with impairment of vision, and not infrequently loss of an eye from infection, may result.

A case I have recently treated prompted me to give the following report:

On May 28, 1942, Mr. M. C., forty-three years of age, while at work in a coal yard felt some coal dust blow into his left eyeball. He immediately went to a nearby physician, who, with a tooth pick at the end of which he had wrapped some cotton, rubbed it across the eyeball back and forth (patient's own description). The physician finally explained that he had removed the foreign body and sent the man home. The patient suffered a great deal of pain, which steadliy became worse, and in addition, the eye became red and irritable. The only advice he was given was to bathe the eye with boric acid solution. There was no history of any previous injury to his eyes.

When he came to my office three days later, he had a visual acuity in the left eye of 20/200 (in the right eye it was 20/20). There was marked ciliary injection, together with an accompanying conjunctivitis. The central area of the cornea was hazy and an examination with a slit lamp microscope revealed an involvement of the deeper layers of the corneal stroma with folds of Descemet's membrane. The pupil was contracted. With one drop of a two percent solution of fluorescein, a deep abrasion of the central area of the cornea was revealed from which radiated irregular streaks, and these stained superficially. The eyeball was irrigated with warm saline, atropine was instilled together with five percent sulfathiozole ointment, and a patch was applied. Sulfanilamide was given internally.

Two days later the patient complained of severe pain in the left eye, injection of the eyeball was more intense, and there was an accompanying iritis. He was admitted to the Flower Fifth Avenue Hospital where he received heat locally, instillation of one percent atropine and sulfathiazole ointment, also sulfanilamide was given internally. In addition, three percent solution of iodine was applied locally to the ulcerated area on alternative days after local anesthesia, using two percent solution of butyn.

This man was hospitalized for three weeks, gradually the ulcer healed over, the accompanying keratitis cleared up, the eyeball became white and there remained a scar in the central area of the cornea with visual acuity of 20/70 minus.

Summary

A foreign body was removed from the cornea with resultant impairment of vision. The removal of embedded foreign bodies in the cornea should never be attempted without local anesthesia, either one or two percent solution of butyn or holocaine. Cocaine is not generally used because it has a tendency to produce a drying of the cornea, with loss of corneal epithelium.

If a foreign body cannot be removed after bathing the eyeball with an eyecup filled with boric acid or saline solution, or with a moist pledget of cotton, an instrument (spud) should be employed, whereby the foreign body can be actually lifted from the layer of the corneal epithelium.

A foreign body should never be scraped off the cornea, as an abrasion with los of corneal epithelium and scarring results with impairment of vision, which may interfere with the performance of work, and even loss of a job, especially where binocular vision is necessary. We must also bear in mind the possibility of loss of an eyeball from infection following the careless removal of a foreign body embedded in the cornea. And if the other eye has defective vision since birth or from a previous injury, then the patient is unable to continue in the job where skill is required, and he suddenly finds himself completely dislocated from his regular life, and must accept a menial job with lower wages. Not only is his morale lowered, but family life may become completely disorganized.

65 CENTRAL PARK WEST

Editorials

Medical State Boards

It would not be fitting if we tried to tell a medical man about state boards! Every man in medical practice has had contact with them and has obtained his permission to practice medicine from them. Each medical man looked forward to his examinations with a certain amount of dread, and was pleased when the ordeal was over and he had the stamp of approval put upon him by the august body known as the State Board.

It is generally recognized that some boards are stiffer than others. In many instances the State Board assume more responsibilities than a reviewing board in determining a man's fitness to practice medicine according to his scientific achievements. If a medical graduate wishes to practice medicine in Georgia, he runs up against a different set of circumstances than he does if he wants to practice medicine in California or New Jersey. There are almost as many differences in the requirements for medical licensing as there are states in the Union. A man may have established a practice in Illinois and, for reasons of health of himself or his family, he may wish to practice in Florida or Wyoming, and find at times difficulties which are practically insurmountable on account of the attitude of the State Board. In many instances politics have crept into the picture, and frequently men find problems confronting them which are not due only to the peculiarities of the State Board procedure or rules.

We feel that a much healthier situation would exist if the examinations of candidates for the practice of medicine were given by a National Board under Federal control. Of course, this may sound revolutionary and startling—especially to members of some state boards—and, no doubt, many will bring out the old shibboleth of states' rights, but we believe that all these arguments are trivial compared to the advantages which would ensue if a license to practice medicine was granted by a Federal Board and the rules for all the states unified.

Vitamins

It is with some hesitancy that we approach the subject of vitamins. Science discovered these invisible objects; science then proceeded to extract vitamins from natural sources and to produce them synthetically. The animal kingdom utilized vitamins long before they were heard of on the radio, for most of the vitamins came from food. Empirically, foodstuffs containing vitamins were used for specific conditions, such as scurvy; cod-liver oil was an old standby for children, and so on. Much has been written and talked about the poor and their poor diet which resulted in beriberi and other deficiency diseases.

No doubt we shall one day know more about the facility with which diseases make incursions in certain vitamin deficiencies. Vitamins have also been used successfully where large quantities are required to overcome certain pathological conditions resulting from acute alcoholism; but on the whole, in man at least, the use of vitamins is necessitated by the faulty diets of civilized peoples. While we were smugly sorrowing over the deficient diets of the poorer peoples, the more highly cultured were emasculating their diets by the ultra-refinement of foods; and this practice, to a large degree, necessitated the supplementing of their diets with the vitamins which had been removed from foodstuffs.

We are not yet certain whether the vitamins, which we so carelessly took out and which we now so carefully replace in the diet, are proper and complete substitutes. There is no arguing that they help a lot, and there is no question that they are a primary necessity in our badly balanced civilization. It seems to us that it would be a sound practice in medicine if more heed were paid to the determination of a natural diet and the proper preparation of foodstuffs, so that the replacement of vitamins as such would be brought to a minimum. We do know that up until recently more vitamins were used in the feeding of animals than were utilized by human consumption, and the animals did well by their owners. We do not presume that the use of vitamins will be curtailed for a long while. We do assume, however, that they will be used more intelligently as we know more about them, but we still cling to our stubborn belief that we should try and get as much of our vitamin intake from strictly natural sources as is possible.

We must confess that most of the foregoing was inspired by a commercial radio program which advocated the use of vitamins for better appetites, better sleep, better looks, better teeth, better hair, better energy, and ever so much more sex appeal.

Drug Manufacture in Australia

Apart from the production of ether and a few inorganic substances, Australia may be said to have lacked a drug industry before the war. Major General S. R. Burston, Director General of Army Medical Services, at the opening of the 1943 Session of the Victorian College of Pharmacy gave a detailed report on the development of the manufacture of plant drugs that can be considered essential.

Morphine is probably the most important drug in wartime. Opium is now being grown in Australia, and thanks to the initiative of a large wholesale firm, the production of morphine is an accomplished fact.

There is a satisfactory reserve of quinine held by the Allied nations. Atabrine is considered a very good synthetic substitute. Datura herbs grow wild in Australia so that stramonium may be obtained, but belladonna

and hyoscyamus have not been extensively cultivated. A native tree that grows abundantly throughout the country is the Duboisia, and its leaves are rich in these alkaloids. It is expected that Australia will soon have satisfied her internal requirements of these drugs, and will begin to supply outstanding Allied wants overseas.

The growth of ergot on rye-grass in New Zealand has become a well established industry, but the product does not meet the specifications of the British Pharmacopœia, nor does it contain the usual proportion of ergotoxin or ergometrine. The difficulty in Australia has partly been met by growing ergot on genuine rye. Australia has long had digitalis growing wild in Tasmania, and more recently this has been cultivated in Victoria to meet wartime requirements. Ipecacuanha, which is useful in the treatment of amebic dysentery, is not produced in Australia as yet, and no Ephedra is grown in Australia.

There was practically no synthetic drug industry in Australia before the war. The present position is much better. Many synthetic drugs are now produced in Australia and there is every prospect that more of the important ones will be produced in the future. The manufacture of salicylic acid has been undertaken locally. Calx chlorinata, phenol and proflavine are being made in large amounts. The last named product is particularly important, as it can replace acriflavine which has hitherto been imported. Peppermint oil and fennel oil, which are widely used in Australian pharmacy, are being distilled in New South Wales, and it is anticipated that oil of ginger will be available from the Queensland crop at an early date. Sulfanilamide and sulfaguanidine are now being manufactured in Australia from local materials.

Surgical instrument manufacture in Australia has developed on parallel lines with the great expansion in the manufacture of drugs.

Quinine Shortage in India

In India, before the war, the annual yield of Government plantations was not more than seventy thousand pounds of quinine, while her annual consumption was two hundred thousand pounds and her real requirements of the alkaloid amount to one million pounds. A serious shortage of quinine started to develop at the beginning of last year. Although the Indian Government averred that there was a sufficient stock of quinine there was yet very little available in the market for the use of the public. What little was available was sold at such high prices that it was beyond the reach of the poor people among whom malaria is widespread. India, therefore, entered the new year with more malaria and with little to treat it except some indigenous substitutes such as chitim bark.

India is seeking self-sufficiency of the drug needs of her country. Nearly three hundred and fifty items of medical supplies, which were formerly imported, are now manufactured from indigenous raw material, among which may be mentioned chloroform, chloral hydrate, amyl nitrite and anesthetic ether. The chief handicap is the lack of some basic chemicals which, because their manufacture in India is not encouraged, have to be imported from outside. This dependence on imported materials will become less and less as India advances industrially.

Shortage of cod liver oil, felt so acutely in the beginning of last year, was happily made good by the large scale manufacture and introduction of Indian shark liver oil during the course of the year. Investigation of this particular kind of cod liver oil has shown that it is equal in therapeutic effect and in its vitamin contents to the high grade Norwegian cod liver oil.

An important problem in India is the transmission of kala-azar. Extended attempts were made to transmit the disease to human volunteers by bites of infected sand-flies. These attempts proved a failure for some unknown reason. Now, Swaminathan and others have been able to transmit successfully kala-azar to man by bites of infected sand-flies. This success has brought to an end the prolonged controversy concerning the transmission of kala-azar.

Immunization and Age Incidence of Diphtheria

Although immunology is not an exact science it appears to be progressing towards that goal, but there is much yet to be cleared up. As far as immunization from diphtheria is concerned, it became a science when Behring and Kitasato prepared and standardized specific antitoxins for the prevention and treatment of diphtheria and tetanus. In the *British Medical Journal*, June 27, 1942, there appeared a communication on immunization and the age incidence of diphtheria by Audrey Z. Baker and G. Nicholson. Acting upon an argument commonly used to support the value of vaccination against smallpox, that vaccination, when rigidly enforced, altered the incidence of the disease from childhood to adults, they studied the effects on age incidence of fourteen years of diphtheria inoculation in children and found that a like phenomenon occurred. The writers proved this by cases in a rural district computed in four-year periods from 1925 to 1942.

Sir Almroth Wright, a leading authority on the subject of immunology, in an address given before a special meeting of Fellows of the Royal Society of Medicine, said that in his opinion much in immunology which had been accepted as true must be discarded and he explained in detail why. However, the principle stands and the value of antitoxins in diphtheria and tetanus has become more strongly believed on account of the successful results obtained. Nevertheless, several obscure features are still to be elucidated.

News Items

Personal.—Dr. Douglas A. Thom, director of the Habit Clinic for Child Guidance, Boston, has been granted a leave of absence and is on active duty with the Medical Corps of the Army of the United States, as neuropsychiatric consultant to the Second Service Command, with the rank of lieutenant colonel. Dr. Harvey Spencer, psychiatrist on the staff of the Judge Baker Guidance Center, has been appointed acting director of the clinic.

Lieutenant Colonel William F. MacFee has been elected vice-president of the recently organized "American Medical Society of the European Theatre of Operations".

Dr. William Worth Hale, associate professor of pharmacology and assistant dean of the faculty of medicine, Harvard University, has retired from his teaching activities but will continue as assistant dean of the faculty of medicine.

Dr. William H. Vail, of Newark, N. J., celebrated his ninety-eighth birthday on August 4th. Dr. Vail is the oldest living alumnus of Princeton University.

Dr. Leverett D. Bristol, of Montclair, N. J., has declined the post of State Director of Health of New Jersey to which he had been elected at the State Board of Health election on July 13th. Dr. Bristol is health director of the American Telephone and Telegraph Company with an office in New York. Dr. J. Lynn Mahaffey, the incumbent whose present term expired on June 30th, will remain in office until another election can be held. He has served for sixteen years.

Dr. Walter B. Cannon, president of the American-Soviet Medical Society, has been formally inducted as a member of the Academy of Sciences of the U.S.S.R. Dr. Cannon is professor emeritus of physiology at Harvard, and is the first American to be a member of the Academy of Sciences of both the United States and Russia.

Dr. Christopher G. Parnall, medical director of the Rochester General Hospital, Rochester, N. Y., has been granted a six months leave of absence to direct a survey of the twenty-six state operated mental hospitals.

Dr. Robert H. Onstott, senior surgeon in the United States Public Health Service, who has been serving as liaison officer to the Fourth Army Service Command, with headquarters at Atlanta, Ga., has been appointed director of the newly formed U. S. Public Health Service District No. 10, with headquarters at Honolulu, Hawaii. Dr. Onstott will serve as consultant and act in an advisory capacity to the Governor of Hawaii and to the Territorial Health Department in matters relating to public health administration. It will be his duty to develop cooperative relations with the armed services and to assist in every practicable way in the maintenance of adequate public health measures in the extramilitary areas.

Colonel Walter S. Jensen, Medical Corps, U.S. Army, formerly executive officer of the Air Surgeon's Office, has been appointed Deputy Air Surgeon of the Army Air Forces. Colonel Henry C. Chenault, formerly chief of the Professional Division, Air Surgeon's Office, succeeds Colonel Jensen as executive officer.

Dr. Samuel Adams Trufant III, of New Orleans, La., has been given the Walter Reed Memorial Award for his thesis entitled "Sylvatic Plague". The award is given by the Louisiana State Medical Society to a senior student at Tulane or at the University of Louisiana School of Medicine. Dr. Trufant was graduated this year from Tulane University.

Dr. Hans Strauss has been appointed active consulting neuropsychiatrist and associate visiting physician to the City Hospital, New York.

Dr. Edgar Erskine Hume has been awarded the Medal of the Aztec Eagle for services and work on military medicine.

Dr. Donald C. Balfour, director of the Mayo Foundation for Medical Education and Research, Rochester, Minn., received the honorary degree of doctor of laws at the annual commencement of St. Olaf College, Northfield, Minn.

Dr. Andrew Rogers, professor of obstetrics at the Ohio State University, will retire from active service at the end of the summer semester. He will become professor emeritus.

Dr. Louis S. Goodman has been appointed professor of pharmacology and physiology and chairman of the department of the College of Medicine of the University of Vermont. Dr. Goodman was formerly assistant professor of pharmacology at the Yale University School of Medicine.

Dr. Perrin H. Long, professor of preventive medicine at the School of Medicine, Johns Hopkins University, is now a lieutenant colonel in the Medical Department of the Army and is serving as medical director in the North African war theatre.

Julius W. Sturmer, Phar.D., has retired as dean of the Philadelphia College of Pharmacy and Science after serving in this capacity since 1916.

Dr. Elihu S. Wing, of Providence, R. I., was named president-elect of the Rhode Island Medical Society at the recent annual meeting.

Chinese Medical Journal Now Published in Washington.—The *Chinese Medical Journal* which was obliged to suspend publication when the Japanese took over the offices of the Chinese Medical Association in Peking, in 1941, is now being issued in Washington, D. C., as a quarterly. The Chinese edition, however, is still being published in China. The publication of the journal in the United States was made possible by grants from the Chinese Foundation.

Pharmacy Corps for the Army.—The establishment of a Pharmacy Corps in the Medical Department of the Army was authorized by Public Law No. 130, passed by Congress and approved on July 12th. The corps will consist of seventy-two officers in grades from colonels to second lieutenants.

Course in Reconstructive Surgery at Columbia.—It is reported that a course in the treatment of facial war wounds by plastic surgery will be opened in September in the School of Dental and Oral Surgery in Columbia University. More than thirty Army surgeons and dentists will take the three months' course which will be given by the following dental surgeons from the department of maxillofacial and surgical prosthesis: Dr. Nathaniel A. Olinger, head of the department; Dr. Joseph D. Eby, assistant professor of dentistry, and Dr. Oscar E. Beder and Dr. Louis E. Saporito, assistants to Dr. Olinger.

Graduate Courses in Neurology and Psychiatry at Columbia.—Courses in neurology and psychiatry will be given at Columbia University College of Physicians and Surgeons and cooperating institutions, October 4th to December 10th. These courses will cover sociological and educational aspects of neurology and psychiatry, in addition to a clinical survey of both fields. Sources of clinical material are the psychiatric and neurological outpatient departments of the Vanderbilt Clinic, the Psychiatric Institute and Hospital and the Neurological Institute. Courses will consist of laboratory work, lectures, demonstrations and practical clinical courses, and any individual course may be taken singly. Arrangements may also be made for an extensive course in neuropathology. Information regarding these various courses may be obtained by writing to the Dean of the Faculty of Medicine, Columbia University, 630 West 168th Street, New York 32, N. Y.

American-Soviet Medical Society Launches Detroit Chapter.—The American-Soviet Medical Society, recently organized to stimulate the exchange of medical information between the United States and the Soviet Union, formally launched its Detroit chapter on Wednesday evening, August 18th. Dr. Warren B. Cooksey, head of the Michigan Blood Bank, presided. Professor Vladimir V. Lebedenko, of the department of surgery, First Moscow Medical Institute, who is at present in the United States as official representative of the Russian Red Cross, was the chief speaker. He described his experiences with Soviet war medicine and particularly with new methods of treating shock at the front. Other speakers included Dr. R. W. Barris, head of the Detroit chapter of the American Red Cross, and Dr. Bruce H. Douglas, commissioner of the Detroit Board of Health. The national headquarters of the Society are at 130 West Forty-Sixth Street, New York, N. Y.

Convention of Military Surgeons.—The Association of Military Surgeons of the United States will open its three day convention in the Bellevue-Stratford Hotel, Philadelphia, on October 21st. This is the fifty-first annual meeting of the organization and will be held under the presidency of Captain William L. Mann, Jr. Medical Corps, U. S. Navy. Rear Admiral Ross T. McIntire, Surgeon General of the United States Navy, is honorary chairman. An important feature of the program is a symposium on war medicine which will be of vital interest to the health and welfare of men in the armed forces, and to physicians, research specialists, and scientists. It is expected that more than two thousand doctors will be in attendance, many of whom have seen active service in camps and bases throughout the United States. Medical officers who have seen actual duty in the various combat zones will give first hand reports on the United States medical services in climatic conditions new to Americans. There will be reports and discussions on such new matters as air evacuations, parachute injuries, the physiological aspects of high altitude flying and dive bombing, tropical medicine, blast injuries, amphibious operations, submarine warfare, neurosurgical problems and the whole field of rehabilitation. The scientific program in addition to the general sessions will consist of a series of forum lectures and teaching panels with numerous motion picture films.

Native Tribes Contribute to the Red Cross.—Forty-four chiefs and headmen of the native tribes on the Solomon Islands contributed $194.62 to the American Red Cross, according to the *J.A.M.A.* The natives have been treated on a voluntary basis in cases of illness or injury by Navy medical officers and have shown a friendly feeling to America.

American Public Health Association.—The seventy-second annual meeting of this association will be held in New York, October 12th to 14th, with headquarters at the Hotel Pennsylvania. The scientific program will consist of a wartime conference. Dr. Allen W. Freeman, of Baltimore, is president and Dr. R. M. Atwater is secretary of the association. Dr. Ernest L. Stebbins, health commissioner of New York City, is chairman of the local committee of arrangements; Dr. Edward S. Godfrey, Jr. is co-chairman, and Dr. Leona Baumgartner is secretary. Mayor Fiorello H. LaGuardia is honorary chairman of this committee. Half-day special sessions will be held dealing with the following subjects: Current health department problems in war; tropical and imported diseases; new ventures toward health security and postwar planning. For further information, write to the American Public Health Association, 1790 Broadway, New York 19, N. Y.

Prisoners of the Japanese.—The following American physicians are prisoners of the Japanese, according to the *J.A.M.A.* Lieutenant M. L. Gottlieb, Medical Corps, U. S. Navy, formerly of New York, was captured by the Japanese while serving at the naval hospital in Guam and is now a prisoner of war at Zentsuji War Prison Camp at Shikoku, Japan. Lieutenant Commander Clyde L. Welsh, of Seattle, reported missing since July 1942, is declared a prisoner of the Japanese, probably in the Philippines. When action began in the Philippines he was stationed at Canacao Hospital, near Cavite. Captain William E. Wilson, of the U. S. Army Medical Corps, is being held prisoner of the Japanese in the Philippine Islands. Dr. Nelson Kauffman, formerly of Indianapolis, and recently with the thirty-first infantry of the U. S. Army, which was stationed in the Philippines, is reported to be a prisoner of the Japanese in a Yokohama prison camp.

National Research Council Fellowships.—The following medical scholarships have announced by the National Research Council, Washington, D. C., according to the *J.A.M.A.*: The Welch fellowships in internal medicine to Dr. Sinclair Howard Armstrong, Jr., Harvard Medical School, Boston, and Dr. Joseph F. Ross, Robert Dawson Evans Memorial Hospital, Boston. A fellowship in the medical sciences was renewed for Dr. Lester J. Talbot at the New York University College of Medicine, and one for orthopedic surgery for Dr. Maxwell F. Kepl at Tulane University of Louisiana, New Orleans. Fellowships in filtrable viruses were awarded to Edward H. Anderson, Ph.D., Vanderbilt University; H. Chandler Elliott, Ph.D. (renewal), University of Toronto; Dr. I. William McLean, Jr., Duke University School of Medicine; Dr. Alison H. Price, University of Michigan (declined appointment); Dr. Hugh Tatlock, Yale University School of Medicine, New Haven, Conn., and the Acute Respiratory Diseases Commission Laboratory, Fort Bragg, N. C., and Dr. Hebert A. Wenner, Yale University School of Medicine and Johns Hopkins.

CLINICAL ANALYSIS OF FIFTY CASES OF DIABETIC RETINITIS

With Reference to Venular and Capillary Pathology

S. A. AGATSTON
New York, N. Y.

(*Continued from page* 484)

CASE 36.—Y. G. female, aged forty-six years. Diagnosis: diabetes; optic neuritis. Blood pressure, 140/80; urine, sugar 1 to 2 percent; blood sugar, 250 mgm. percent (fasting). Controlled by diet and forty units of insulin for fifteen years. June 28, 1935: Fundi: extensive diabetic retinitis with white spots and optic atrophy.

CASE 37.—C. C., female, aged fifty-three years. Diagnosis: diabetes only partly controlled for sixteen years with eighty-eight units of insulin daily. Blood pressure, 120/80; urine, sugar one to two percent; blood sugar, 250 to 350. July 3, 1935: Fundi: retinal arteries showed senile arteriosclerosis, good caliber; diabetic retinitis with small spots and a few confluent spots; O. S. more marked.

CASE 38.—L. H., female, aged fifty-six years. Diagnosis: diabetes controlled for eight years with fifty units of insulin daily. Blood pressure, 182/95; urine, sugar 0 to trace; blood sugar, 120 to 200. January 16, 1936: Fundi: retinal arteries normal; retinal veins normal; slight punctate diabetic retinitis; cataracts developed in both eyes; cataracts removed in 1939 and 1940.

CASE 39.—N. L., female, aged fifty-three years. Diagnosis: diabetes of several years' duration, under control with diet and insulin. Blood pressure, 160/80; urine negative; blood sugar, 170 to 270. January 4, 1937, O. U., immature cataract. Fundi: O. D., marked diabetic retinitis; large floating opacities in vitreous which appeared suddenly; myopia –8.00; retinal veins somewhat engorged. March 10, 1938: O. S., acute glaucoma. Operation of iridectomy was followed by vitreous hemorrhage, and hemorrhage in the anterior chamber. Paracentesis which was reopened several times did not relieve the condition, and absolute glaucoma developed. November 12, 1938: O. D., acute glaucoma. This was relieved by iridectomy, with no complications resulting. Following recovery from iridectomy, opacities appeared in vitreous, and retinal veins were engorged. The vitreous gradually cleared, and as haziness seemed caused only by the nuclear cataract, the latter was removed on January 21, 1929. The patient did well for one week. After seven days, thrombosis of the retinal vein occurred, followed by secondary glaucoma.

CASE 40.—M. M., female, aged fifty-nine years. Diagnosis. diabetes; moderate hypertension. Diabetes had existed since 1925, without treatment most of the time, but controlled with diet and eighteen units of insulin since October 1935. Blood pressure, 190/100; urine, negative; blood sugar, 150 to 222. July 5, 1935: O. D., cataract; O. S., immature cataract. Fundus: O. S., a few spots of retinitis visible; arteries slightly hypertensive; retinal veins normal. May 6, 1935, O. D., preliminary iridectomy. August 10, 1935, cataract extraction, good result. October 21, 1935, O. D., hemorrhage in anterior chamber with secondary glaucoma, treated with repeated paracenteses and snake venom. Absolute glaucoma developed, followed later by atrophy of the globe. April 23, 1938, O. S., preliminary iridectomy. May 14, 1938, extraction, A. P., with uneventful recovery. June 9, 1939, O. S., retinal hemorrhage near disc. November 2, 1939, hemorrhage into vitreous. This was gradually absorbed with some development of retinitis proliferans; vision remained useful.

CASE 41.—M. F., female, aged sixty-five years. Diagnosis: diabetes; hypertension; congestive heart failure. Blood pressure, 210/100 to 240/120; urine albumen 0 to trace, sugar 0; blood sugar at present 140 to 170 mgm. percent. November 23, 1940: Eye findings: O. D., acute glaucoma; O. S. hemorrhages into vitreous; retinal hemorrhages. Fundus: hazy, but engorged veins were visible.

CASE 42.—A. A., female, aged sixty years. Diagnosis: diabetes. Blood pressure, 130/80; urine normal; blood sugar, 145 mgm. percent. September 18, 1940: Fundi: massive retinal exudate in macular region; retinal arteries normal; veins normal; no hemorrhages visible; O.D., incipient cataract; O.S., cataract more advanced.

CASE 43.—A. F., male, aged fifty-eight years. Diagnosis: diabetes. The disease started with juvenile diabetes at the age of sixteen years; now under control with seventy units of insulin daily. Blood pressure, normal; urine, normal; blood sugar, 90 to 120. November 18, 1940: Fundi: slight hypertensive changes; otherwise normal.

CASE 44.—T. M., female, aged sixty-two years. Diagnosis: diabetes and hypertension. Blood pressure, 190/110 to 210/120; urine, albumen 0 to trace; sugar, one to two percent; blood sugar, 200-350 mgm. percent; incompletely controlled for twelve years with fifty-six units of insulin. June 9, 1939: Eye findings: O.D., marked exophthalmos, which started four years ago, increasing gradually up to present degree, which now remains stationary. Fundi: O.D., optic atrophy (pressure of neoplasm); O.S., moderate diabetic retinitis; retinal arteries hypertensive but of good caliber. A few small hemorrhages were noted and the retinal veins were slightly engorged.

CASE 45.—M. M., female, aged sixty-five years. Diagnosis: diabetes and generalized arteriosclerosis. Blood pressure, 170/85; urine normal; blood sugar, 120 to 200. Diabetes controlled for eight years with fifteen to twenty units of insulin. May 25, 1940: Eye findings: O.D., acute secondary glaucoma, probably caused by thrombosis of retinal veins; pupils dilated; iris vascular; tension 90 (Schiotz). O.S., punctate capillary hemorrhages and white spots; retinal veins slightly engorged; retinal arteries normal.

CASE 46.—D. S., male, aged fifty-eight years. Diagnosis: mild hypertension; diabetes. Blood pressure, 160/95; urine, negative; blood sugar, 150 to 200. Diabetes under control with thirty units of protamine zinc insulin. September 28, 1940: Fundi: retinal arteries

slightly sclerotic; veins normal; no hemorrhages or exudates.

Case 47.—R. G., female, aged sixty-five years. Diagnosis: diabetes and hypertension. November 26, 1940: blood pressure, 180/100; urine, albumen 0 to trace; blood sugar, 250 mgm. percent; not under careful treatment. Fundi: retinal arteries of good caliber, but moderately hypertensive; retinal veins markedly engorged, and many branches thrombotic; massive hemorrhages; a few white spots in macular region.

Case 48.—S. M., female, aged fifty-nine years. Diagnosis: diabetes. The patient had been diabetic since 1922. February 10, 1942: blood pressure, normal; urine, albumen 0; sugar 0 to trace; blood sugar 150 to 200. Under control with fifty units of insulin and diet. O. D., mature cataract; O. S., immature cataract. Fundus: retinal vessels normal; a few spots of punctate retinitis (capillary).

Case 49.—J. F., female, aged sixty-five years. Diagnosis: diabetes and hypertension. The patient had been a diabetic for fifteen years. November 26, 1940: blood pressure 180/100; urine, albumen 0 to trace; sugar 0 to trace; blood sugar 250 to 150, under control with diet and insulin. O. D., aphakia. Fundus: retinal arteries moderately hypertensive; retinal veins slightly engorged; massive exudate in paramacular region; a few retinal hemorrhages and some fresh opacities in vitreous. O. S., aphakia; similiar picture but less marked.

Case 50.—H. G., male, aged fifty-seven years. Diagnosis: diabetes and hypertension. Blood pressure, 160/90. Urine, albumen negative; sugar started with two percent a year ago, now occasional trace. Diabetes under control by diet. Blood sugar ranged between 125 and 190 mgm. percent. Fundi: retinal arteries showed slight hypertensive changes; retinal veins were normal; no retinitis or hemorrhages present.

Acknowledgment

I wish to thank Dr. Michael Ringer and Dr. Samuel Melamed for their aid in collecting data.

References

1. Agatston, S. A.: Significance of engorgement of retinal veins in iritis, diseases of the uvea, and general conditions. Med. Rec. 146:296-97 (Oct. 6) 1937.
2. Agatston, S. A.: Relation of vascular disease to retinitis. Med. Rec. 153:303-06 (May 7) 1941.
3. Agatston, S. A.: Clinicopathological study of diabetic retinitis. *Ann. Ophth.* 24:252-257 (August) 1940.
4. O'Brien, C. S., and Alden, J. A.: Unusual changes in retinal veins in diabetes. *Ann. Ophth.* 24:4:742-757 (Oct.) 1940.
5. Elwyn, Herman: Problem of diabetic retinitis. *Ann. Ohhth.* 25:1:139-148 (Jan.) 1941.
6. Lee, Robert Hui: Ocular fundus in diabetes mellitus. *Ann. Ophth.* 26:2:181-202 (August) 1941.
7. Gibson, Glen Gregory, and Smith, L. W.: Retinal phlebosclerosis. *Ann. Ophth.* 26:5:840 (Nov.) 1941.

875 Fifth Avenue

Tuberculous Persons in Industry

The tuberculous person of the chronic pulmonary type in a quiescent state is safe to mingle with others provided there is assurance that no activation exists, says Dr. Harvey Bartle, *J.A.M.A.*, Mar. 27, 1943. Placement of such persons in well ventilated work rooms with medically controlled assignments requiring minimal physical effort is permissible. Many tuberculous persons employed in suitable jobs react favorably and do effective service under proper industrial medical supervision. Periodical x ray examination, sputum analysis and clinical examination to safeguard patients and contacts are essential.

Treatment of Uterine Malignancy

(*Continued from page 548*)

The vaginal route of attack is indicated, as in over ninety-five percent of cases of malignancy of the uterus, the cervix is involved, therefore the big end of the malignant cone (the cervix) is in the vagina and is more accessible to an extensive removal of paracervical tissue than by the abdominal route. Also, there is less danger of malignant implantation by the vaginal route than by drawing the maligant cervix up through the abdominal structures, incident to an abdominal hysterectomy.

If the malignant uterus is examined after it has been removed by an abdominal operation, it can be seen what a small amount of paracervical tissue is removed, yet this is the site where malignancy is most apt to return.

We have discussed in the monograph already referred to the freedom from malignancy of the ovaries following several thousand vaginal hysterectomies by the clamp method for malignancy of the uterus, where the ovaries, one or both, have remained, in nearly all patients. This alone is a virtue of a superlative degree and brings up the question of a possible stimulated growth of ovarian tissue incident to some uterine hormone. The question is too momentous to discuss here.

We end as we began, by saying that the endorsed treatment of the malignant uterus is the greatest therapeutic anachronism of our knowledge.

241 North Eighteenth Street

Affective Psychoses Treated With Combined Convulsive Shock and Psychotherapy

Norman A. Levy and Roy R. Grinker, of Chicago (*Jour. Nerv. Ment. Dis.*, June 1943) present their psychological observations in a series of cases of effective psychoses treated with combined convulsive shock and psychotherapy. They report in detail a number of selected cases to illustrate the value of convulsive shock therapy in rendering inhibited and retarded depressed patients accessible to psychotherapy. They state that the main psychotherapeutic objective is to help the patient to achieve a more satisfactory method of dealing with the repressed and inwardly-directed aggressions and reactive guilt feelings so that he will be freer to accept or express them. Their experience supports the thesis that convulsive shocks produce physiological disturbances in the brain which affect the dynamic relationship between the inhibiting, repressing functions and the inhibited repressed aggressive drives resulting in a freer expression of these affects more directly in dream, fantasy, verbal or motor activity. This process is accompanied by clinical improvement in the depressive symptomatology. Liberation of aggressive drives need not be accompanied by conscious intellectual awareness of the process for they may appear in rationalized or projected form or as increased self-assertiveness or aggressiveness. In more favorable cases conscious emotional insight and intellectual understanding of the conflict may result. A genuine character change may occur in most favorable cases resulting in freer expressions and more personal satisfactions with a concomitant maturing of the ego.

Book Reviews

Therapeutics of Internal Diseases

The Therapeutics of Internal Diseases. In five volumes. Supervising editor, GEORGE BLUMER, M.A. (Yale), M.D., David P. Smith clinical professor of medicine, Yale University School of Medicine; associate editor, ALBERT J. SULLIVAN, M.D., chief medical officer, Gallinger Municipal Hospital, Washington, D.C. Second edition, revised. Chicago: Wilcox and Follett Co., 1943. Price $50.00.

Therapeutics have undergone such tremendous changes within the professional lifetime of many practitioners that this edition is a veritable blessing in bringing practical knowledge in a form readily applicable for everyday practice. In the first volume the underlying principles and special technical procedures are devoted to general therapeutics and in the succeeding ones, a general review of the activity of the important groups of drugs and treatment of individual diseases is considered in great detail. It is not a system of therapy from one author but by many contributors wholly devoted to the field in which they practice. The concept of therapeutics as that part of medical science concerned with the application of remedies for disease no longer maintains, for this system emphasizes the importance of the patient with the disease rather than the disease *per se*. Therapy is a combination of science and art, as are all other phases of medicine, rather than applied pharmacology.

The three main objectives in the physician's fight against disease are prevention, relief and cure. The first is by far the most important but, unfortunately, proved preventive measures have not been universally applied because they involve the expenditure of large sums of money, and because of the inertia of the public and profession alike. Great progress has, however, been made in curative therapeutics of many diseases with the development of immunology, chemotherapy, endocrinology and nutrition. Nevertheless, there are many diseases for which we possess no specific remedies and which must be treated symptomatically. Even extensive lesions in many an organ do not deter from symptomatic therapy because nature provides an excessive amount of tissue in almost all our organs, despite limited activity from damage due to disease. Consequently, two principles govern us in symptomatic therapy—modification of unfavorable symptoms such as pain or fever, and use of methods which encourage normal reaction of the body against disease. The plan of treatment should be as simple as possible according to individual indications. Therapeutic wisdom requires a questioning attitude of mind, for every new remedy passes through three stages: the stage of bally-ho, the stage of reaction and the stage of balance. Past experience indicates that empiricism must of necessity persist until the underlying nature of many diseases has been clarified.

This therapeutic series embraces general therapeutics, special therapeutic techniques; drugs, toxicology, and infectious diseases; mycoses, protozoa, and metazoa; intoxications; physical agents, edema, dehydration, acidosis and alkalosis; preoperative and postoperative treatment; respiratory, cardiac, and circulatory, alimentary, peritoneal, liver, gallbladder, pancreatic, genitourinary, hematopoietic and locomotor disorders. Each disease is evaluated therapeutically from the viewpoint of a diagnostic summary with all the ramifications of individual variations in practice. It is a treatment set well worth possessing, not only to improve the condition of the patient, but to stir the acumen of the practitioner.

Electrotherapy and Light Therapy

Electrotherapy and Light Therapy. With the essentials of hydrotherapy and mechanotherapy. By RICHARD KOVÁCS, M.D., professor of physical therapy, New York Polyclinic Medical School and Hospital; attending physical therapist, Manhattan State, etc. Fourth edition, thoroughly revised. Illustrated with 314 engravings and a color plate. Philadelphia: Lea and Febiger, 1942. Pp. 735. Price $8.00.

If we accept the dictum that it is not disease we endeavor to treat but a diseased body and every diseased body is a law unto itself, then we should appreciate the valuable contribution to our armamentarium made by Dr. Richard Kovacs' *Electrotherapy and Light Therapy*. This is by far the best book of its kind to date. The author's evident thorough understanding of the fundamental laws, physiological effects and therapeutic indications of these remedial agents, should assure the physician of their worthwhile place in every department of medical practice, either in conjunction with customary remedies or as the sole procedure.

To give this book adequate comment would require a small volume, for it is so full of helpful information that each subject should be carefully read and the wholesome directions followed by well trained hands and guided by an intelligent head. It is the modest opinion of this reviewer that this recent effort by Dr. Kovacs will become the recognized textbook in physical therapeutics. Should a better book upon this ever interesting subject be published, it will be written by Dr. Kovacs.

War Surgery

The Principles and Practice of War Surgery. With Reference to the Biological Method of the Treatment of War Wounds and Fractures. By J. TRUETA, M.D., formerly director of surgery, General Hospital of Catalonia, University of Barcelona; assistant surgeon (E.M.S.) Wingfield-Morris Orthopaedic Hospital, Oxford. With an introduction by OWEN H. WANGENSTEEN, M D., Minneapolis. With 144 text illustrations. St. Louis, Mo.: The C. V. Mosby Company, 1943. Pp. 441. Price $7.50.

Dr. Trueta is an ardent advocate of the treatment of war wounds and fractures by encasing them in plaster. He states that on superficial grounds, many surgeons are at first opposed, but "from experiences in Great Britain . . . the quality of the results is . . . independent of the surgeon's skill." In Part II the following principles are laid down as absolutely necessary for success: 1, prompt surgical treatment; 2, cleansing of the wound; 3, excision of the wound; 4, provision of drainage; 5, immobilization in a plaster-of-Paris cast. These principles must be strictly observed, and "to practice some and omit the rest is to invite failure." Dr. Trueta gives full credit to Friedrich and Winnett Orr as pioneers in blazing this "new path."

However, it is very illuminating to read Dr. Wangensteen's "Introduction." Some of us remember that there was in New York City a certain Dr. Frederic S. Dennis who wrote a *System of Surgery* many years ago which in its time was "standard." In 1884, Dr. Dennis published in the *J.A.M.A.* a "Report of the treatment of compound fractures in 144 cases without

a death from septic infection". He depended upon "surgical cleanliness, immediate fixation, and free drainage" plus anesthesia and disinfection with phenol or mercuric chloride. His results seem to have been as remarkable as anyone can report today, and he was not blessed with either "plasma" or the sulfa group. It is amazing that his very carefully outlined procedure never took deep root in surgical practice, for he was an exceedingly careful worker and not given to overstatement, judged by present "reports." Dr. Wangensteen has rendered a real service in quoting from Dennis' "paper". Once again the old statement proves out, that there is nothing new under the sun. Dr. Trueta seems to have gone into "the literature" quite thoroughly, for he begins his historical review with Paracelsus and Galen and Hippocrates, carries on through the age of Desault and Larrey, and ends with Friedrich (1898), and the American Winnett Orr whose experiences were founded on World War I. He seems not to have heard of Dennis . . .

Perhaps it does not make any great difference after all, but the pity is that in spite of terrible wars and great suffering among soldiers during the past sixty years, the great work of Dennis should have been forgotten. The "principles" he used are quite the same as Trueta sets forth, and are not difficult to apply. But somehow it will "go against the grain" of many modern-trained surgeons to go all the way with this "new technique." Evidence is abundant, nevertheless, that unless one is willing to do this, half-hearted measures or "modifications" will end in failure and resultant condemnation of a method which seems to be well established. Dr. Trueta is most convincing. His book is very readable and is a *must* for everyone who regards himself as a "traumatic surgeon".

Rehabilitation Measures

Rehabilitation of the War Injured. A Symposium. Edited by WILLIAM BROWN DOHERTY, M.D., and DAGOBERT D. RUNES, Ph.D. New York: Philosophical Library, 1943. Pp. 684. Price $10.00.

This book is a compilation from the periodical literature and is, therefore, the work of many men. Moreover, much of the material comes from "peace time" or civilian practice, although a few of the authors have had experience in World War I, especially the British surgeons. Since neurology and psychiatry are playing a much larger part in the present conflict than in previous ones, it is well that the first chapter deals with the sequelæ of head injuries, with disorders of the central nervous system, and with the "resocialization" of the war wounded. It may, however, be considered by some as not sufficiently complete or detailed, but this is fairly impossible since it would require a much larger volume than this one to describe the "neuro" cases comprehensively. All that can be done here is to give a bird's-eye view of the subject.

About two hundred pages deal with reconstructive and plastic surgery. Among the authors are Sir Harold Gillies and our own Ivy, Miller, Blair, Sheehan, Safian, Cinelli, and Kazanjian. Orthopedics is set forth in only some sixty pages. It includes leg lengthening, the aftercare of amputations, arthroplasty of the hip by the new method of Smith-Petersen, and toe transplantation to replace a lost thumb. About seventy pages are devoted to physiotherapy which, of course, cannot do justice to this extensive subject, since the after-care of our wounded boys will require years rather than weeks or months. But this is well supplemented by some two hundred pages dealing with occupational therapy and vocational guidance. And, finally, there are ten pages devoted to the legal aspects of rehabilitation. An independent addendum entitled "Miscellaneous" deals with vascular and neurological lesions in survivors of shipwreck.

While there are many "references" at the end of each chapter, the absence of an index is a real defect in a work of this kind. Nevertheless, the volume is well done so far as it goes and will repay careful perusal.

Diet and Nutrition

Nutrition and Diet in Health and Disease. By JAMES S. MCLESTER, M.D., professor of medicine, University of Alabama, Birmingham. Fourth edition, thoroughtly revised. Philadelphia and London: W. B. Saunders Company, 1943. Pp. 849. Price $8.00.

This fourth edition of McLester's book on nutrition comes at an opportune time. The last edition was published in 1939 and we have learned much about nutrition since then. A discussion of nutrition is timely, as diets throughout the world have been changed and curtailed, and the latest edition of this standard textbook has taken in new discoveries regarding vitamins. More heed has been paid to the mineral elements in food and their requirements. Many of the changes in our diet are discussed, even those which are most recent in their development because of the exigencies of war.

A valuable part of the book is that which deals with the question of diet in deficiency and other diseases. An extremely instructive chapter on nutrition in industry is new and a special section has been added on the feeding of the aged.

This is one of the most thorough books on the subject and will be of real value to the practitioner or anyone interested in dietary problems.

Creatine and Creatinine Metabolism

Creatine and Creatinine Metabolism. By HOWARD H. BEARD, Ph.D., Professor and Director of the Department of Biochemistry, School of Medicine, Louisiana State University, New Orleans. Brooklyn, N. Y.: Chemical Publishing Co., Inc., 1943. Pp. 376. Price $4.00.

Any person interested in this vast and important subject, who reads the preface by the author and the foreword by Dr. Carl L. A. Schmidt, will certainly be intrigued to peruse, or perhaps more properly, study, this excellent book.

Although Doctor Beard has modestly implied, in his preface, that he is presenting a review of the literature for the past sixteen years, the book is a good deal more than a "review". Not only has the author incorporated many of his own experimental findings; he has logically and brilliantly criticized some of the fallacies under which we have been laboring, and has offered newer concepts for a more practical and sensible approach to the problem of creatine and creatinine metabolism.

The chapters are arranged in rational sequence, and each is complete for a given phase of the problem.

This book will be of tremendous interest not only to biochemists but to physicians who are interested in a better understanding of the problems of production, storage, and excretion of creatine and creatinine.

Critique

Soybeans? Peanuts? It is time the big eaters tried soybeans and peanuts on their menus for size. There is no food quite like soybeans in general all-round value, though some people think they could have been rendered a little more palatable. They are rich in energy value, protein of good quality, fat, carbohydrates, calcium, phosphorus, iron, vitamin A, thiamin, riboflavin, and niacin. Their only serious lack is vitamin C. Peanuts are less rich in energy value, and almost every other one of the food elements named, except fat; here they surpass soybeans. These foods also have the important wartime characteristic of making a low drain upon our farm and other resources.

If an abstract nutritive unit is set up representative of general food values—fat, protein, carbohydrates, minerals, and vitamins combined—806 such nutritive units can be produced in soybeans, per unit of total farm resources; the figure is only 170 for peanuts. In this respect soybeans surpass any other common crop. Figures for a few others, for purposes of comparison, are 89 for milk, 470 for whole-flour wheat, 121 for white-flour wheat, 419 for rolled oats, 44 for beef cattle, 42 for sheep, 572 for carrots, 111 for tomatoes, and 121 for watermelons. The fact that a crop does not make a heavy drain upon our total farm resources —land, labor, and feed—is very important in wartime.

When you get a crop like soybeans, highly nutritive and at the same time producing an extremely high number of nutritive units per unit of farm resources used in its production, you really have something. That is why the War Food Administration is allocating to American civilians, for the year ending June 30, 1944, twelve times the quantity of soya products made available last year. In spite of this, the bulk of our supply will be used overseas, but U. S. civilians will be allocated 27 pounds per 100 of soybean flour, flakes, and grits produced. That means 362,500,000 pounds of such high-protein vegetable food to bolster our meat-depleted diets here.

Soya products will appear in our bread, our soup powders, our macaroni, our breakfast cereals, our pancake and waffle mixtures, and will be liable to pop up almost anywhere else. Soybean sausages are not beyond the realm of possibility and if they are dubbed the main dish, come to the table in a casserole, and are served by papa, anthropologists tell us Americans will fall for them heavily. Soybean flour and grits will soon become household necessities, not as substitutes for wheat flour, but as a source of protein with which bread, cake, pastry, pancakes, meat loaves, and other home-cooked standbys may be fortified. Many of these soya-supplemented foods are expected to become available by this fall.

Peoples in areas liberated from the Axis will probably get 55 out of every 100 pounds of our soybean products, say 744,000,000 pounds out of the 1,350,000,000 pounds we expect to produce between July 1, 1943 and June 30, 1944. Our Allies will get 240,000,000 pounds, or 17 out of every 100 produced. All other claimants—U. S. military and war services, our Territories, Greece, and the Red Cross—will take about 4,000,000 pounds, or 1 out of every 100.

Since 1937, our production of soybeans has been expanded from about 46,000,000 to an estimated 200,000,000 bushels; it has doubled since 1941. That is rapid conversion of farm plant capacity to war purposes. Soybean oil is also valuable industrially; soybean meal makes an excellent high-protein feed for animals.

Few realize that soybeans entered this country many years ago. The report of Commissioner of Patents, Charles Mason (1804-82) for the year 1853, mentions the "recent" introduction of the soybean, though actually they had been tried out in this country even before that. But it was only about this time that a two-acre tract was set aside in Washington for an agricultural propagating garden. Here sorghum and soybeans were early studied, along with other imported plants and seeds.

Animals as Producers of Human Food A milch cow produces eighteen pounds of human food per one hundred pounds of digestible matter it consumes. The figure for pigs, in the form of dressed meats, is only 15.6 pounds, for dressed cow 9.4, dressed calf or veal 8.1, butter 5.4, eggs 5.1, dressed poultry 4.2, dressed lamb 3.2, dressed steer 2.8, and dressed sheep 2.6. Milk also ranks rather low as a valuable food because it is so dilute. Butter, cheese, beef, pork, flour, sugar, cereals, peas, peanuts, and raisins all surpass it. Man requires from 80 to 120 grams of protein a day and almost instinctively seeks to get it, so much so that if on a low-calorie diet he will seek to get his protein anyway. Animal proteins should normally supply at least half those in man's diet as they contain the more valuable, essential amino acids. But land produces more human food when sown to cereals than when grazed; hence, if we are to feed a great many more people than we have been feeding, we must veer from animal to vegetable proteins. A hectar, 2.47 acres, of land has been found to yield 1,500 kilograms of protein when planted to clover, but only 240 if planted to cereal grains, still less with potatoes, and so on. That is something to think about; we may be eating early-cut, quickly dried clover meal if the war lasts long enough. Of course we could still further increase soybean plantings; for soybeans actually introduce nitrogen into the soil instead of depleting the soil of this element, and their more widespread use as food would improve the status of human nutrition quite as much as did the introduction of potatoes some two hundred years ago.

"Acidosis" When men ate 750 grams of meat, 100 of fat, 200 of bread, 100 of potatoes, and took 1,000 cubic centimeters of fluid daily, the titrable acidity of their urine, in terms of N/10 alkali, was 200, and its H-ion concentration 6 to 7. When they ate 500 grams of oats, 100 of fat, 100 of meat, 250 of bread, and took 750 cubic centimeters of fluid daily, the respective figures were 350 and 5.5. The urine of a carniverous dog is not acid; it instead shows an alkalinity rarely encountered in man; on the other hand the urine of a rabbit fed on oats is acid. Rabbits fed on oats and water also soon show albuminuria, but no abnormalities at autopsy. (See *Klin. Wchnschr.* 2:122, 1923 and *Arch. Int. Med.* 32:866, 1923.)

THE CRITIC

MEDICAL RECORD

A National Review of Medicine and Surgery, Established 1843

FORMERLY KNOWN AS THE MEDICAL JOURNAL AND RECORD

PUBLISHED MONTHLY BY
THE MEDICAL JOURNAL AND RECORD PUB. CO., INC.

Office of Publication: 210 Orchard Street, East Rutherford, N. J.
Editorial and Executive Offices: 215 Fourth Avenue, New York 3, N. Y.

GREGORY STRAGNELL, M.D. - - - - - *Editor*
A. M. MARLATT - - - - - *Assistant Editor*
N. F. HANF - - - - - - *Business Manager*
C. A. MCHALE - - - *Advertising Manager*

Subscription Price: Under Domestic Postage, $4 Yearly; Under Foreign Postage, $4.75 Yearly; Single Copies, 40 cents.

Remittance should be made by New York Exchange, post office, or express money order, payable to The Medical Journal and Record Publishing Company, Inc., or by registered mail, as the publishers are not responsible for money sent by unregistered mail. Remittances from Foreign Countries should be made with International Money Orders.

MANUSCRIPTS

All material for publication should be sent to THE EDITOR of the MEDICAL RECORD, 215 Fourth Avenue, New York 3, N. Y.

Exclusive publication: Original articles are accepted with the understanding that they are contributed only to the MEDICAL RECORD.

Preparation: Material must be typewritten and double spaced. Carbon copies or single spaced manuscripts will not be considered.

Changes other than the correction of errors will not be permitted after the article has been set in type, so be sure and write your paper the way you want it printed.

Illustrations: Photographs should be numbered and bear on the back author's name and title of article; top of the picture should be indicated. Glossy prints produce the best half-tones. Drawings and charts for reproduction should be made in black ink.

Bibliographies should follow the style of the Quarterly Cumulative Index Medicus of the American Medical Association, and should give name of author, title of article, name of periodical, with volume, page, month, day of month if weekly, and year.

Manuscripts should carry addresses of authors and should not be rolled.

Reprints are furnished. Prices can be secured after article is in type.

All material published in the MEDICAL RECORD is copyrighted and should not be reproduced without our permission.

SEPTEMBER 1943

Medicolegal Notes

Successive Injuries Aggravating Preexisting Disease

The fact that an employee is diseased does not bar his right to recover for an accidental injury even though it should be concede that the injury would not have occurred but for the diseased condition.

Medical evidence showed that an employee twice injured had a preexisting spinal arthritis at the time of the original injury; that this was aggravated by his first injury; and that after the second injury, which occurred about five years after the first, he became totally disabled from carrying out any type of gainful occupation, becoming totally and permanently disabled. This evidence was held to justify an award for total disability resulting from the second injury, under the Longshoremen's and Harbor Workers' Compensation Act.

The original compensation award was for temporary total disability, made subject to the deputy's right of review if the claimant's condition should change. After the second injury compensation was paid within less than a year of a claim based on total disability. Even if the original award was suspended during the reemployment of the claimant, and in that period his condition improved to that of partial disability, that classification did not affect claimant's right to recover for total disability resulting from the second injury. The case could be considered under the first award. This the deputy had authority to review and award compensation for total disability on finding that there had been a change from partial to total disability. Great Atlantic and Pacific Tea Co. v. Cardillo, United States Court of Appeals for District of Columbia, 127 F. 2d 334.

Application of Exemption from License Tax Statute

A surgeon who received his certificate to practice in Louisiana immediately went into the Federal Public Health Service, passed the Civil Service Examination, and was assigned to a United States Marine Hospital in Alabama, where he remained for about ten years until his resignation. He received no remuneration from his profession other than his government salary. Immediately after his resignation, he applied for and received a certificate to practice medicine and surgery in Alabama, and opened an office there as a specialist.

In an action by the State to recover license tax alleged to be due from the time of his beginning private practice, his defense was that he was exempt from payment of the tax because of the provision of Alabama Code 1940, Lit. 51, 552, which is as follows: "Provided that the license imposed by this section shall not apply until such person shall have practiced his or her profession as long as two years."

The Alabama Court of Appeals, State vs. Sellers, 9 So. 2d 19, reversed judgment for defendant and rendered judgment for the State. It held that the purpose of the exemption is to aid the young practitioner in establishing himself in his profession. The practice of a profession and private practice are not synonymous. The defendant was practicing medicine when he was doing general surgery in the United States Marine Hospital. Medicine was his profession. Therefore, he was practicing his profession within the meaning of the statute.

Disease Existing at Time of Accident

In an action to recover double indemnity on life policies excluding death resulting directly or indirectly from disease or infirmity, the plaintiff's own evidence established that the insured, when he sustained injuries in an automobile accident, was suffering from arthritis, arteriosclerosis, and a cardiac condition. It was held that the burden of proof was on the plaintiff to exclude the possibility that these diseased conditions contributed to the insured's death or to show that they were not diseases or infirmities within the meaning of the restrictive clause of the policies. Real Estate Trust Co. of Philadelphia vs. Metropolitan Life Ins. Co., Pennsylvania Supreme Court, 17 A. 2d 416.

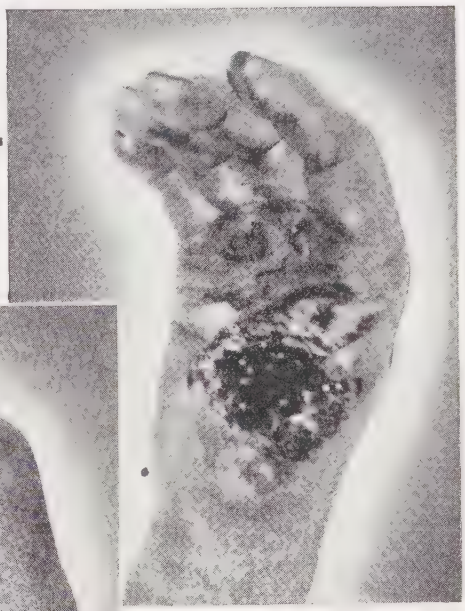
Compensation for Medical Services

In an action for the reasonable value of professional services rendered by the plaintiff physician to a patient at the request of her daughter and son-in-law, who had promised to pay for them, the Illinois Appellate Court, Warren vs. Supernand, 309 Ill. App. 575, 33 N.E. 2d 510, reversed a judgment for the plaintiff for $75 as against the son-in-law along and in favor of the daughter and rendered judgment for $284 against both defendants. The service rendered included a major operation, a blood transfusion, and attendance on the patient until her death.

Of Multiple Efficacy in
BURN AND WOUND
THERAPY

The reports of investigators, beginning with Lohr in 1934, show how *external cod liver oil therapy* is effective in several simultaneous ways in promoting the healing of Burns, Wounds, Sores and Ulcers:

1. Stimulates granulation and epithelization — even on diabetic patients — shortening the period of invalidism.
2. Diminishes general intoxication in burn and wound cases.
3. Forms no thick nor adherent coagulum, thus reducing the probability of infection, and making secondary infections — if they do occur — easier to control.
4. Minimizes pain caused by dressing — and requires changes of dressing less frequently.
5. Reduces need for skin grafting because necrotic parts are cast off rapidly and because deep burns can be recognized early, appropriate action taken.
6. Leaves a good cosmetic effect: little pigmentation, no scars or keloids on delicate new skin, minimal cicatrization.



Right thumb shortly after amputation by a buzz-saw. Metacarpal divided at its distal two-thirds.

27th day after accident and subsequent dressings with Nason's VITAGUENT (Cod Liver Oil Ointment).

For physicians who wish to utilize these multiple therapeutic effects, VITAGUENT (Nason's) is an ointment which embodies cod liver oil of a grade rich in vitamins. VITAGUENT facilitates the use of the external cod liver oil technique because it is a standardized pharmaceutical in an easy and simple-to-use form, with a pleasant, refreshing odor. It has stimulating, astringent properties due to the presence of 1% Zinc Borosalicylate (T-N. Co.).

VITAGUENT is distributed ethically by leading prescription druggists. Packaged in 1 oz. & 4 oz. tubes; 1 lb. jars.

Physician's sample on request.

TAILBY-NASON COMPANY
Kendall Square Station, BOSTON 42, MASS.

TRADE MARK SPHINX

VITAGUENT
(NASON'S)

TRUTH OF THE MATTER

Vitamins at War

T. SWANN HARDING
Falls Church, Va.

In addition to purchases of vitamin concentrates for our armed forces, the Food Distribution Administration has bought more than $12,750,000 worth for allied use, primarily the British and Russians. It is also buying multivitamins fabricated into tablets of which it took more than eighty million in a recent single purchase. Hence, as one writer puts it, "vitamins are being lifted from the category of aspirin tablets and Seidlitz powders to their rightful place as essential foodstuffs".

This may not be altogether true, for many laymen still regard vitamins as magic medicine of sorts. In any case they are now weapons in total war. Moreover, whereas the layman long tended to think that vitamins had life and wiggled around like little worms, they have turned out mostly to be tiny crystals in the shape of bars, cones, or needles, when viewed under the microscope. Of course vitamin A, which is concentrated from natural fish-liver oils, has not yet been crystallized, but the rest, in the main, are now factory-made, crystalline synthetics.

While our stomachs have their own mysteriously efficient methods of extracting vitamins from oranges, carrots, and other foods, their laboratory and factory extraction from these sources offers considerable difficulty. Furthermore, it is often preferable to juggle molecules around by the principles of organic chemistry than to make the vitamins wholly synthetically. This is a complex business.

A century ago the British Navy recognized that citrus juices would prevent scurvy and they put this knowledge to work. Today the vitamin that actually does the job is a chemical compound of known formula —$C_6H_8O_6$. But there are many ways of putting together six atoms of carbon, eight of hydrogen, and six of oxygen, though only one or two of them will make vitamin C or ascorbic acid. The structural formula of this substance is quite complex.

Even the empirical formula of vitamin B_1 is complex —$C_{12}H_{18}ON_4SCl_2$, and its structural formula makes that of vitamin C look positively simple. Though deficiency of this vitamin has been known for fifty years to cause beriberi, the vitamin itself was not synthesized in the laboratory as thiamine hydrochloride until 1936.

What was once called vitamin G or B_2 turned out to be riboflavin. It was synthesized in 1935. But it had long been suspected as a factor essential for health and growth, just as knowledge that there was some substance with the properties and functions of vitamin A long preceded its synthesis, in 1937.

To make small quantities of synthetic vitamins in the laboratory is often much easier than bulk preparation under factory conditions, as is true of most such processes. Agricultural or industrial raw materials must be found in large quantities; mass-production processes must be devised for making each chemical compound that later forms part of the final jig-saw puzzle molecule, and a complex factory line must be developed. What works fine in a test tube often goes completely haywire in a ton-size vat.

(*Continued on page 562*)

THE NEWEST CONTRIBUTION TO EFFECTIVE VAGINAL THERAPY

Allantomide VAGINAL CREAM

Today, in the course of general practice, doctors are encountering vaginal infections more frequently than ever before. The problem of the control and prophylaxis of these is a major one. We posed this problem to our Research Laboratories.

The Result: An agent which would provide quick, effective control and cure of several vaginal infections—

ALLANTOMIDE VAGINAL CREAM

a combination of 15% sulfanilamide, 2% allantoin in a specially developed hydrophilic base buffered to a pH of 4.5 with lactic acid.

Based on the results of actual case tests, Allantomide Vaginal Cream is indicated for *gonorrheal cervicitis, vaginal and vulval condylomata, chancroid,* and other lesions of the exocervix, vagina and vulva.

Trichomonas vaginitis is also amenable to treatment but the possibility of reinfection always exists. Allantomide Vaginal Cream also reduces to a minimum nonspecific secondary infections for such lesions as *condyloma acuminatum, granuloma inguinale,* and *lymphopathia venereum.*

Allantomide Vaginal Cream is available in 4 oz. tubes with or without a vaginal applicator for efficient, satisfactory use.

For further information, you are invited to write our Medical Division. The National Drug Co., Dept. J., Phila. 44, Pa.

BUY MORE W^ BONDS

National
DRUG COMPANY

BIOLOGICALS, BIOCHEMICALS, PHARMACEUTICALS FOR THE MEDICAL PROFESSION

Temperature, moisture, and solubility conditions vary in small and in large lots. Furthermore, even the simple process of making vitamin C breaks down into turning corn into corn starch, corn starch into glucose, which must be hydrogenated to sorbitol, which is converted to the very rare sugar, sorbose, which is turned into diacetone sorbose, and finally oxidized into 2-keto-1-gulonic acid, or ascorbic acid, as you please.

The commercial production of riboflavin was held up for months after laboratory synthesis had been achieved because it was so difficult to manufacture ribose, also an exceedingly rare sugar. The first efforts made by one firm to complete the vitamin B_1 molecule produced an odor so persistent and vile that even the laboratory workers were aghast.

Five years after vitamin C was synthesized, however, it became available commercially; that was 1937. Commercial quantities of synthetic vitamin B_1 began to be sold the same year, after nearly two years of experimental manufacturing. Riboflavin became commercially available in 1938, and B_6, or pyridoxine hydrochloride, in 1939. Nicotinic acid or niacin has been known since 1867, but its use as the antipellagra vitamin was not established until 1938.

As methods were perfected, prices went down. In 1935 a gram of vitamin B_1, laboriously extracted from natural sources, cost $300, but two years later, synthetic B_1 could be produced at $7.50 a gram. The average price paid by the Food Distribution Administration for bulk purchases was approximately sixty-five cents a gram in 1941 and only thirty-seven cents in 1942. Vitamin C was dropped similarly from $213 an ounce to $1.85 in 1941 and $1.08 in 1942.

Prices for riboflavin and nicotinic acid have also dropped sharply, though vitamin B_6 is quite expensive. During 1942 the Food Distribution Administration paid $5 a pound for nicotinic acid, $7 for ascorbic acid, $168 for thiamin, and $309 for riboflavin. A bottle of one hundred tablets, containing not more than a gram of some vitamin with a wholesale price in cents, may cost consumers a dollar or two at their drug stores due to packaging, transportation, and merchandising costs.

Big war orders to Government agencies naturally cost less. These vitamins are largely used to supplement the diets of our armed forces overseas at times and in places where their rations must be limited in one way or another. Each tablet of the multivitamin preparation used contains about one-half a person's normal requirement as established by the Food and Nutrition Board of the National Research Council. Since vitamins B_1 and C are not stored by the body to an appreciable extent, stores of them must be watched closely. When fresh fruits and vegetables are in short supply we tend to require vitamin C concentrate, just as we need more riboflavin when milk is in short supply. The same holds for soldiers, only more so.

Our supplies of most vitamins are good, though we could do with a bit more B_1 and niacin. However, wartime demands have curtailed civilian supplies of vitamin C and riboflavin sharply. As the war continues, additional foodstuffs must be fortified with vitamins and even now it is important that housewives learn to use fortified flour and breadstuffs by preference. We have a vigorous and splendidly equipped synthetic vitamin industry which has done its part well and which will be invaluable to us in the nutritional rehabilitation of other peoples in the post-war period.

PASADYNE

affords decided relief for headaches of nervous origin occurring in those of highly neurotic tendency, or subject to hysteria or epilepsy.

PASADYNE ACTS PROMPTLY AND WITHOUT UNDESIRABLE BY-EFFECTS.

JOHN B. DANIEL, Inc. Atlanta, Georgia

ANESTHESIA OF SHORT DURATION

Each Vinethene package is supplied complete with dropper-cap and folder describing technic of administration and precautions in use.

ARMY E NAVY
Buy WAR BONDS FOR VICTORY

Vinyl Ether for Anesthesia Merck

VINETHENE
Reg. U. S. Pat. Off.

An Inhalation Anesthetic for Short Operative Procedures

COUNCIL ACCEPTED AMERICAN MEDICAL ASSN Council on Pharmacy and Chemistry ACCEPTED

Rapid induction, prompt, complete recovery, and infrequent nausea or vomiting make Vinethene an admirable anesthetic for home, office, or hospital use. *Literature on request.*

MERCK & CO., Inc. *Manufacturing Chemists* RAHWAY, N. J.

What to Tell Your Patients about KARO in Wartime

The exigencies of wartime production have not affected the purity, quality and effectiveness of KARO as a milk modifier.

However, some grocers may be temporarily short of either *Red* label or *Blue* label KARO.

Since *both* types *are* practically identical in dextrin, maltose and dextrose content, *either may be used* in all milk mixtures. The slight difference in flavor in no way affects KARO's essential value for prematures, newborns and infants.

How much KARO for Infant Formulas?

The amount of KARO prescribed is 6 to 8% of the total quantity of milk used in the formula—one ounce of KARO in the newborn's formula is gradually increased to two ounces at six months.

CORN PRODUCTS REFINING CO.
17 Battery Place • New York, N. Y.

Effect of Cigarette Smoke on the Normal Throat

Noth D. Fabricant, Chicago (*Arch. Otolaryngol.*, March 1943) presents the results of an experimental investigation of the effect of cigarette smoke on the normal, physiological range of the pH of the mucous membrane of the human throat. This investigation was aided by a grant from the Medical Relations Division, Camel Cigarettes. The subjects were one hundred men and women with clinically normal throats.

Three kinds of cigarettes were used in the experiments: the first, a cigarette using glycerin as the hygroscopic agent (Camels); the second, a cigarette using diethylene glycol, and the third, a cigarette which was specially made so as to contain no hygroscopic agent. The glycerin-treated cigarettes and the diethylene glycol-treated cigarettes were purchased at random; the cigarettes without hygroscopic agent were made to conform in weight and all other physical characteristics to the purchased cigarettes. In the conduct of the experiments the speed and volume of the puff, the frequency and number of puffs and the position of the cigarette while burning were left entirely to each smoker's preference and habits.

The irritating effects of cigarette smoke were studied by minute to minute readings of the pH values of the mucous membranes of the throat before, during and after smoking the three kinds of cigarettes. The author summarizes the results of his investigation as follows: The pH range of the clinically normal throat was found to vary from 4.9 to 8.0, the reaction in the majority of cases falling within the acid range. While the values varied with different persons, for the same subject the range was small and fairly constant. Cigarette smoke, regardless of the kind of cigarette, in no way altered the normal, physiological pH range of the throats of one hundred men and women. In terms of the effect on the pH of the throat, it is impossible to differentiate between the smoker and the nonsmoker.

It cannot be stated that the type of hygroscopic agent used in the manufacture of various brands of cigarettes influences the irritation properties. None of the cigarettes used in this experiment caused a significant change in the normal pH range of pharyngeal tissues.

Penicillin Bibliography

An annotated bibliography on penicillin has been compiled by Winthrop Chemical Company, which is a complete review of the published literature up to June 1943. It contains abstracts of eighty-one papers published since 1929, all of which appeared in American and British publications. A detailed subject index adds to its values.

The first paper on penicillin was by Alexander Fleming, published in 1929 in the *British Journal of Experimental Pathology*. One paper appeared in 1930, another in 1931, in 1932 there were two papers, but none in 1933 or 1934. In 1935 and 1936 one paper was published in each year; from 1937 through 1939 no papers appeared, but in 1940 five papers were published. In 1941 there were eight papers, in 1942, thirty-four, and thus far this year no less than twenty-seven have appeared.

Single copies of the Winthrop bibliography on penicillin are available to interested scientists on request.

For an airplane, there is safety in height—height beyond the reach of anti-aircraft shells. But with blood pressure it is just the reverse—high levels are indeed danger signals that cannot be ignored.

For patients whose blood pressure reaches dangerous heights, prescribing HEPVISC Tablets results in prompt, smooth and lasting return to more normal levels. Associated distressing hypertensive symptoms respond gratifyingly to this effective preparation.

Unlike the nitrite group of drugs which so often cause a dangerously abrupt drop in blood pressure, HEPVISC produces a smooth and sustained lowering of the blood pressure—a hypotensive effect that persists for weeks after withdrawal of the medication. This frequent observation has been confirmed by clinical studies which also showed that HEPVISC affords effective relief of hypertensive headache, dizziness and tinnitus in 80% of cases.

Such therapeutic action and the ensuing feeling of well being of patients on HEPVISC medication assure full cooperation and materially lessen the danger of sudden hypertensive crises.

HEPVISC Tablets each contain 20 mg. Viscum album extract, 60 mg. desiccated liver and 60 mg. desiccated pancreas. The average dose is 3 to 6 tablets daily, ½ hour before meals, in courses lasting 2 to 3 weeks with a week's interval between courses.

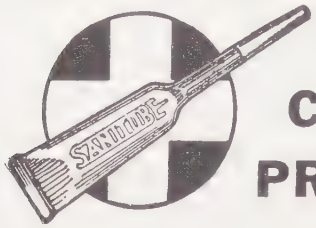
Available in bottles containing 50, 500 and 1000 tablets. Liberal samples to physicians on request.

℞ HEPVISC

An Effective Hypotensive

ANGLO-FRENCH LABORATORIES, INC.

75 VARICK STREET **NEW YORK, N. Y.**



COMPLETE PROTECTION

Against Gonorrhea and Syphilis

Sanitubes, the original Navy prophylactic tubes, are not sold in Army post exchanges.

Every drug store a prophylactic station!

A single tube only—half the ointment inside the urethra to prevent gonorrhea, half applied outside to protect against syphilis.

No "two tubes" to get confused, no color to stain fingers and clothing, no odor, no irritation.

As to comparative efficiency, let us send you laboratory findings.

THE SANITUBE CO., NEWPORT, R. I.

Cod Liver Oil Ointment in Wound and Burn Therapy

There are many reasons for believing that physicians today are treating a larger-than-usual number of wound cases and burns due to thermal, chemical, friction, steam and electrical causes. For one thing, the presence of many new employees working in factories producing at top speed is likely to cause an upswing in such injuries. Other increases can be expected among youngsters when both parents are working, among householders attempting their own domestic repair jobs, and, in cold weather, among people using makeshift heating devices.

As a consequence there is an increased interest among physicians in burn and wound therapy. One such treatment, introduced by Lohr of Magdeburg about ten years ago (*Zentralbl. f. Chir.* 61:1686, 1934), and more recently reported on by Dr. Parker C. Hardin (*The Southern Surgeon,* May 1941), has proved of singular efficacy not only for the treatment of wounds and burns, but also for sores and ulcers. That treatment is Cod Liver Oil Ointment, as, for example, Nason's Vitaguent.

When the advantages described by Lohr and his successors, Bosse, Steel and Hardin, to name a few, are summarized, it is easy to see why Vitaguent on burns and wounds is so effective. Cod Liver Oil Ointment, say these investigators, 1, reduces infection; 2, minimizes need for grafts—because it allows deep burns to be recognized earlier, forms no adherent coagulum and destroys no epithelial elements but instead, actually

(*Continued on page* 568)

On the Job—OUR FEMININE "MANPOWER"

OFFICIALS of the War Manpower Commission assert that women today can capably "take over" any man's job, *provided it is within their physical powers.*

Menstrual aberrations, however, cause frequent absenteeism and loss of efficiency. For the symptomatic treatment of functional conditions, physicians find Ergoapiol (Smith) a highly efficient emmenagogue, in which the action of all the alkaloids of ergot (prepared by hydro-alcoholic extraction) is synergetically enhanced by the presence of apiol, oil of savin, and aloin.

Its sustained tonic action on the uterus provides welcome relief in many cases—by helping to induce local hyperemia and to stimulate smooth, rhythmic uterine contractions, and by serving as a potent hemostatic agent to control excessive bleeding.

May we send you a copy of the booklet "The Symptomatic Treatment of Menstrual Irregularities."

MARTIN H. SMITH CO.
150 LAFAYETTE STREET
NEW YORK, N. Y.

INDICATIONS

Amenorrhea, dysmenorrhea, menorrhagia, metrorrhagia, in obstetrics.

Dosage: 1-2 cap. 3-4 times daily.

Supplied: In ethical packages of 20 cap.

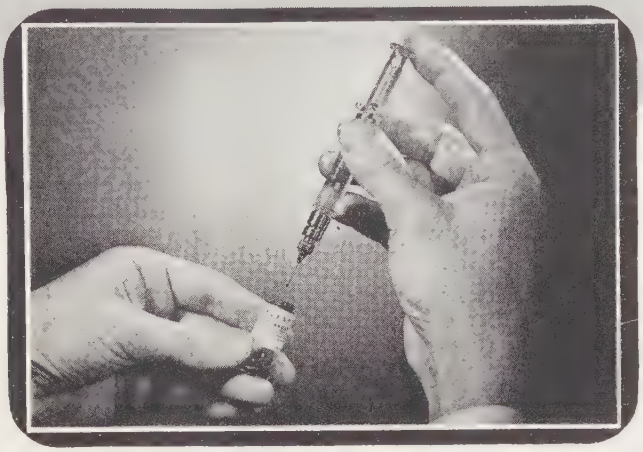
ERGOAPIOL

THE PREFERRED UTERINE TONIC

Ethical protective mark, M. H. S., visible only when capsule is cut in half at seam.

Riboflavin (VITAMIN B_2)

for adequate parenteral therapy



THE PRODUCTION of Flavaxin Soluble "Niphanoid," a complex salt of riboflavin, makes it easy to administer a sufficient dose of this vitamin by the parenteral route. Although it is suggested that 5 mg. be dissolved in 2 cc. sterile distilled water, larger doses may be given in small volume (e.g., 15 mg. in 3 cc.). Injections may be made subcutaneously, intramuscularly or intravenously. Thus, any dosage requirement for the treatment of marked ariboflavinosis can now be met.

ampuls for injection

Flavaxin Soluble "Niphanoid" is available in ampuls of 5 mg., boxes of 5 and 25 ampuls.

tablets for oral use

Flavaxin tablets of 1 mg. and 5 mg., bottles of 25 and 500.

Flavaxin Soluble NIPHANOID*

Reg. U. S. Pat. Off. & Canada

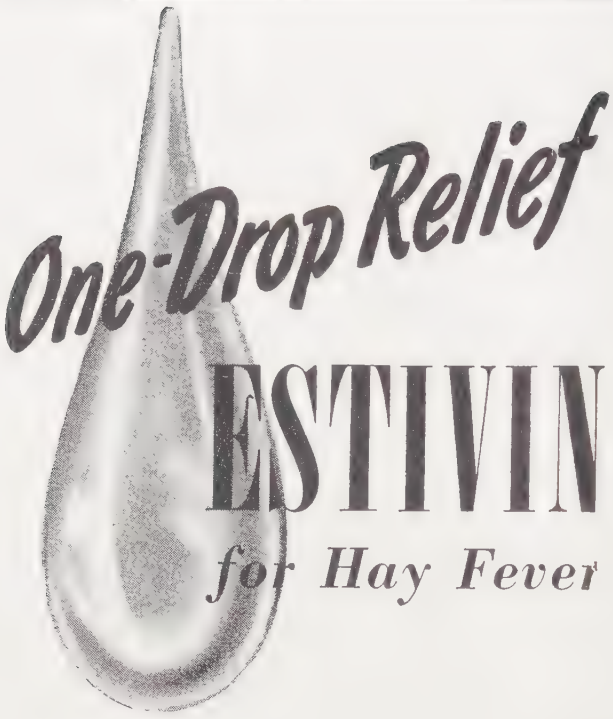
FLAVAXIN, Brand of Synthetic Riboflavin

*"Niphanoid," trademark, Winthrop Chemical Company, Inc.

ARMY NAVY WINTHROP

WINTHROP CHEMICAL COMPANY, INC.

Pharmaceuticals of merit for the physician NEW YORK, N. Y. WINDSOR, ONT.



A drop of Estivin in each eye speedily arrests conjunctival irritation and lacrimation and clears the vision. Then follows relief from congestion of the nasal passages, with subsidence of discharge from the nose and paroxysms of sneezing.

One drop in each eye 2 or 3 times daily is generally sufficient to keep the average patient comfortable during the entire hay fever season. In the more severe cases, additional applications whenever the symptoms recur will assure relief throughout the day.

Literature and sample on request

Schieffelin 1794 Quality Integrity Service

Schieffelin & Co.

20 Cooper Square New York, N. Y.

Pharmaceutical and Research Laboratories

stimulates epithelization; 3, is practically painless to apply; 4, produces an initial "massive secretion of pus" which soon leads to separation of all necrotic material, and 5, results in a good cosmetic effect, with no scars or keloids.

Vitaguent (Nason's) contains cod liver oil of a grade rich in the vitamins A and D, considered by investigators to be the healing factor in this ointment. The astringent qualities of the cod liver oil, which is self-sterilizing (Lohr) and bactericidal on burns and sores, are accented in Vitaguent by the inclusion of one percent zinc borosalicylate. And Vitaguent has a pleasing odor, the unpleasant smell of cod liver oil being removed by special processing.

Vi-Syneral Vitamin Drops

The U. S. Vitamin Corporation have just issued Vi-Syneral Vitamin Drops, especially designed to supplement the diet of infants, but also useful for children and adults. The company, makers of the multiple vitamin and mineral product, Vi-Syneral, believe the new drops to be the first to provide a stable solution of both water-soluble and fat-soluble vitamins in a nonalcoholic vehicle.

Vi-Syneral Vitamin Drops contain in every 0.6 cc. (as marked on dropper), vitamin A, 4000 U.S.P. units; vitamin B_1, 333 U.S.P. units (1 mg.); vitamin B_2, 400 micrograms (.4 mg.); niacinamide, 4 mgs.; vitamin C, 25 mgs.; vitamin D, 400 U.S.P. units. These vitamins are frequently lacking in adequate quantities in the diets of many infants, children and adults.

Vi-Syneral Vitamin Drops are conveniently and quickly administered by mixing with the infant's milk or formula. They blend clearly and uniformly with liquids without floating or adhering to sides of glass. Adults and children may take the drops with milk, cereals, soups, desserts or almost any foods. The drops have no fishy taste or odor, and do not change the taste of foods.

Members of the profession are invited to write for detailed literature and sample. Address the U. S. Vitamin Corporation, 250 East Forty-third Street, New York, N. Y.

Tuberculosis is a chronic disease, but in times of stress, with restrictions on diet and hygienic living, its frequency always increases. Already the rates are beginning to rise, even in this country, and abroad there are hints that tuberculosis is taking its usual war-time toll.—*Annual Report,* Saranac Laboratory for Study of Tuberculosis, 1941.

EFFECTIVE TREATMENT OF YOUR NEXT CASE OF EPIDERMATOPHYTOSIS

CASTADERM

LANNETT

A dermatological preparation containing resorcin, boric acid, acetone and carbolfuchsine.

Ethically advertised to the profession only

PACKED IN 1 OZ. APPLICATOR BOTTLES

Send for professional sample

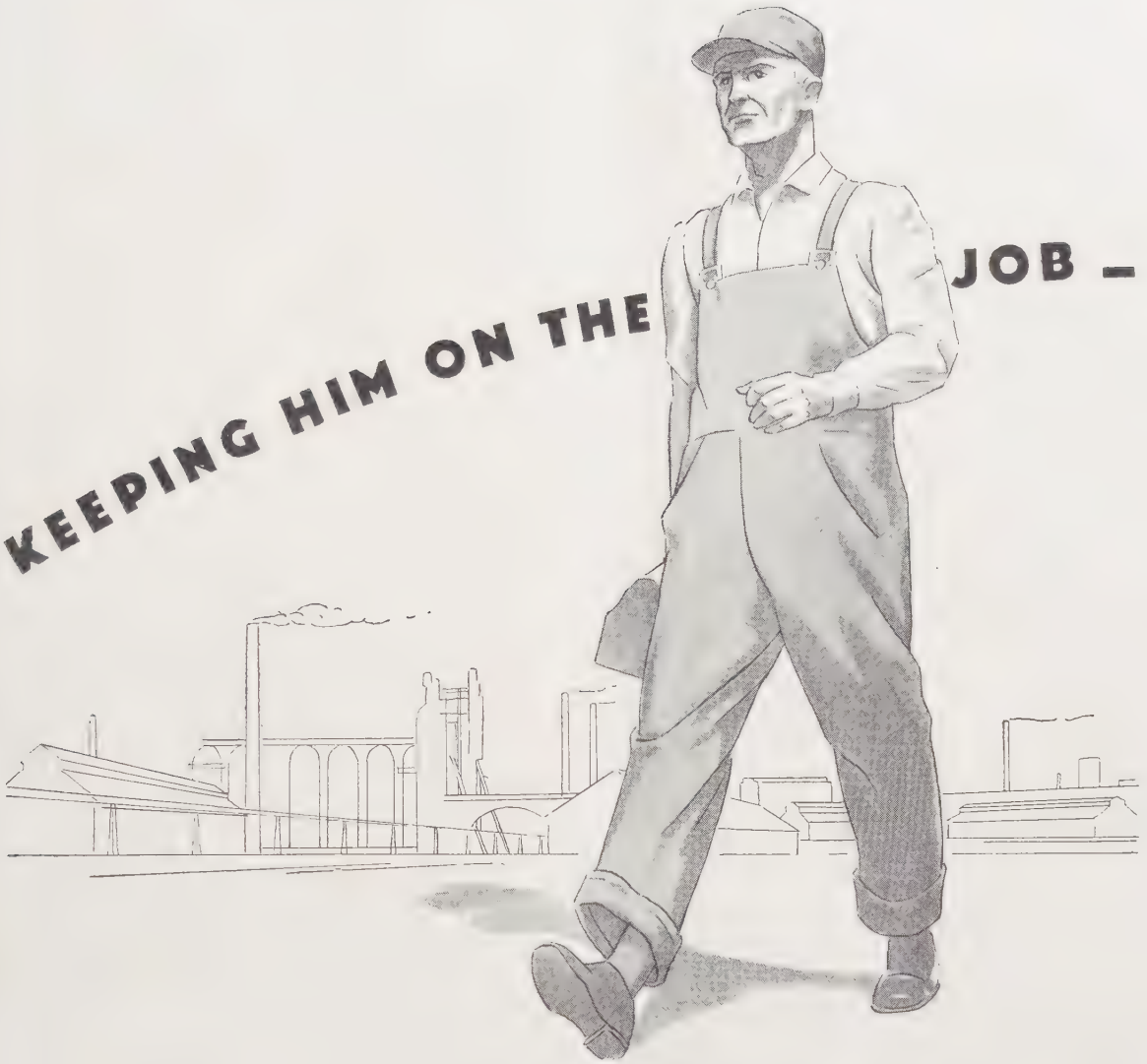
MADE IN U. S. A. BY

THE LANNETT CO., INC.

PHILADELPHIA, PENNA.

ETHICAL PHARMACEUTICALS FOR THE PROFESSION QUALITY · ACCURACY LANNETT TRADE MARK

KEEPING HIM ON THE JOB —



Hemorrhoids rank comparatively high among the causes of lost "man hours." Today, more than ever, this should be a matter of concern to physicians.

Whenever non-surgical treatment is indicated, Anusol may be used with the knowledge that it will afford the kind of relief likely to keep the patient on his job. By their emollient properties Anusol Suppositories reduce inflammation, alleviate pain and check the bleeding. They contain no narcotic or anesthetic to give the patient a false sense of security.

We suggest that you give Anusol a trial in one of your ambulant cases; we shall be glad to send you a supply for that purpose.

SCHERING & GLATZ, INC.
113 West 18th Street, New York City

ANUSOL HEMORRHOIDAL SUPPOSITORIES

HARROWER
ENDOCRINES

THE HARROWER LABORATORY at Your Service GLENDALE CALIFORNIA

ENDOTHYRIN

Thyroid extract
(thyroglobulin)

Dependable potency
(iodine 0.62%)

Lower toxicity
(better tolerated--less heart-stimulating effects)

Samples and literature on request

The HARROWER LABORATORY, Inc.
GLENDALE, CALIFORNIA
NEW YORK CHICAGO DALLAS

"Pure Water Like Pure Air Is Vital To Health"

ELECTRIC WATER COOLERS AT
SMALL MONTHLY RENTALS

•

ALSO ENJOY WHOLESOME
GREAT BEAR BEVERAGES
Ginger Ale—Club Soda—Root Beer

•

GREAT BEAR SPRING COMPANY
New York—Brooklyn—Albany—Buffalo
Newark and the Oranges—Jersey City
Philadelphia

•

Consult Your Telephone Directory
For Office Nearest You.
Free Home or Office Delivery in Above Areas.

Antigenic Properties of Staphylococcal Vaccine and Toxoid

A study of the antigenic properties of staphylococcal vaccine and staphylococcal toxoid and the two in combination is presented in the *Journal of Immunology*.

Experimental Work in Animals

Samuel Etris describes the experimental work carried out on rabbits in the Department of Research of The National Drug Company. This work, he says, was planned with the idea of determining the antibacterial stimulating action of staphylococcal vaccine, as determined by the agglutinative test; the antitoxin-stimulating action of the toxoid, as determined by the units of antitoxin produced; and the dual antibody stimulation of the two in combination.

The technique of preparing the vaccine and the toxoid is described in detail and to test the potency of these two types of antigens twenty-four rabbits were selected and divided into three groups. Each group of animals received staphylococcal vaccine, staphylococcal toxoid, or the combined vaccine-toxoid.

From the results of these experiments, the author concludes that staphylococcal toxoid in rabbits stimulates antitoxin in high titer but does not stimulate antibacterial substances as determined by the agglutinative test; staphylococcal vaccine in rabbits stimulates agglutinins in high titer but does not stimulate the production of antitoxin or aid in maintaining an existing level of antitoxin; staphylococcal vaccine-toxoid in rabbits stimulates both agglutinins and antitoxin in high titer; staphylococcal vaccine added to toxoid combines the advantages of both types of antigen and has, in addition, a complementary action on antitoxin stimulation; six weeks after receiving injections of toxoid or vaccine-toxoid the circulating antitoxin is reduced nearly to the preinjection level. The agglutinins during the same period are maintained at a higher level; the injection of vaccine-toxoid into rabbits at fourteen-day intervals is sufficient to induce a progressive rise in the antitoxin- and agglutinin-content of the serum.

Immunity in Humans

From the results obtained in the immunization of rabbits with staphylococcal vaccine-toxoid, and because of its direct approach to human treatment, it seemed advisable to obtain information on the effect of such a combination in the stimulation of antibacterial

(*Continued on page* 572)

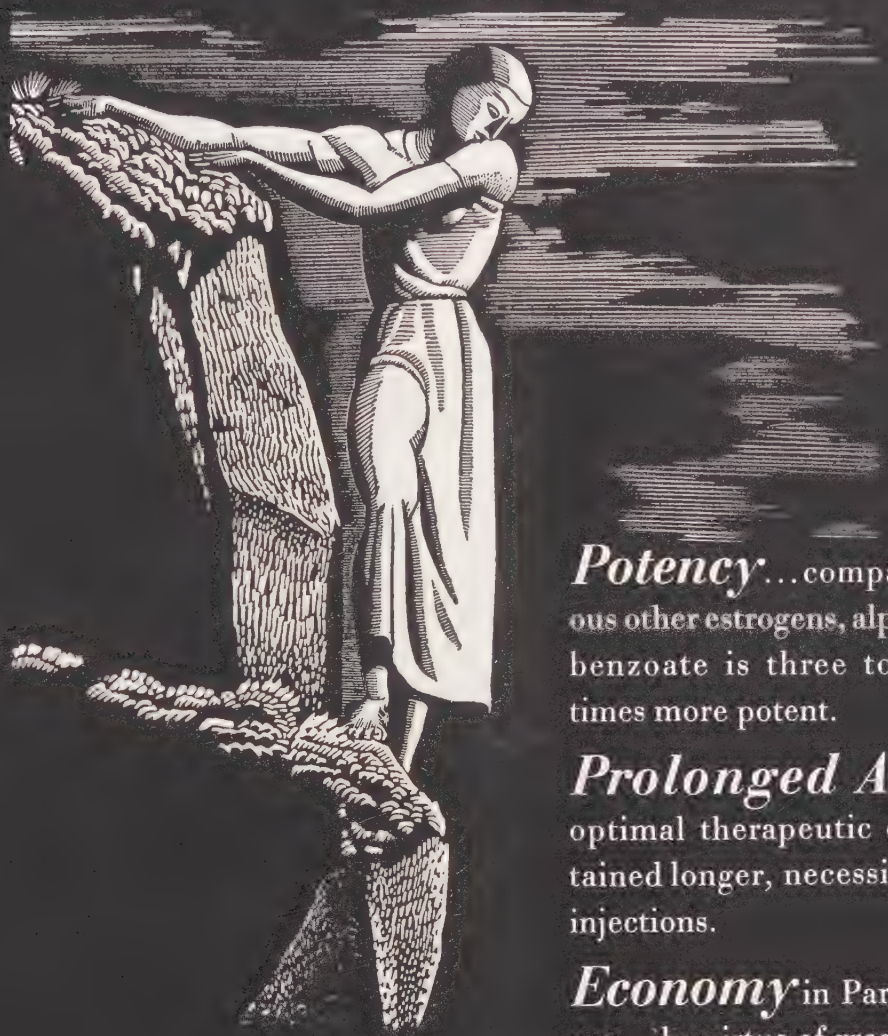
Vitamins alone are not enough!

VI-SYNERAL
[FUNK-DUBIN]

Contains VITAMINS: A-B$_1$-B$_2$(G)-C-D-E and other B Complex factors, fortified with MINERALS: calcium phosphorus, iron, iodine, manganese, magnesium, copper and zinc . . . separately balanced for each age group:
(1) ADULTS (2) INFANTS AND CHILDREN (3) ADOLESCENTS (4) EXPECTANT AND NURSING MOTHERS (5) SPECIAL GROUP (MIDDLE-AGED AND AGED PATIENTS.)

U. S. VITAMIN CORPORATION • NEW YORK, N. Y.

PROGYNON-B



Potency... compared to various other estrogens, alpha-estradiol benzoate is three to thirty-five times more potent.

Prolonged Action... optimal therapeutic effects maintained longer, necessitating fewer injections.

Economy in Parenteral Therapy... by virtue of greatest potency and prolonged action.

"Non-Toxic in Extremely High Single and Accumulative Dosage."

SCHERING CORPORATION SCHERING **BLOOMFIELD • NEW JERSEY**

FOR VICTORY AND AFTER: BUY U.S. WAR BONDS

In Whooping Cough

THOUSANDS OF DOCTORS PRESCRIBE

ELIXIR BROMAURATE

WITH EXCELLENT THERAPEUTIC RESULTS

THERAPEUTIC EFFECT:—Elixir Bromaurate inhibits the coughing center, relieves the spasmodic attacks and cuts short the period of the illness.

ELIXIR BROMAURATE is also valuable in other PERSISTENT COUGHS and in BRONCHITIS and BRONCHIAL ASTHMA.

In four-ounce original bottles

The dosage for children is a teaspoonful every 3 to 4 hours. Adult dosage two teaspoonsful.

✓ **DOCTOR**

A BOOKLET on "WHOOPING COUGH AND ITS TREATMENT" WHICH IS WORTHY OF A PLACE IN YOUR LIBRARY WILL BE GLADLY SENT TO YOU. DROP US A LINE FOR A COPY.

GOLD PHARMACAL CO., New York

USE THIS BLANK FOR SUBSCRIBING To MEDICAL RECORD

THE MEDICAL JOURNAL & RECORD PUB. CO., INC.

215 Fourth Avenue, New York 3, N. Y.

Please enter my subscription to the MEDICAL RECORD for one year, beginning.....

.....

☐ Enclosed find payment.

☐ Send me bill.

Name .....

Street .....

City..... *State*.....

Subscription Price, $4.00 Foreign, $4.75

and antitoxic antibodies in the normal individual and in patients with infections due to the staphylococcus. The product selected for human use was Vatox (now called Staphylococcus Vatox) which was supplied by The National Drug Company.

Samuel Etris, in collaboration with Dr. Frederic B. Faust, selected two small groups of individuals, one consisting of eleven men from twenty to fifty years of age who did not show evidence of pathology. The other group of five patients either had lesions of known staphylococcal etiology or this organism appeared to be the underlying cause of the condition. The non-pathological group received injections every four days and the pathological group every seven days. The reactions in general were mild. At first there was a moderate zone of erythema and in some cases a slight muscular soreness on pressure. The reactions from later injections were less in intensity and no generalized reactions occurred. In the pathological group there was a much greater variation in the reactions. One patient with staphylococcal proctitis had a marked increase in both agglutinins and antitoxin and was most responsive to the vaccine-toxoid treatment. One patient with chronic rheumatic myocarditis and one with furunculosis had a moderate increase in agglutinins and a definite increase in antitoxin and both responded well to vaccine-toxoid treatment. One patient with a carbuncle had only a slight increase in agglutinins and antitoxin, but, the patient responded promptly to vaccine-toxoid treatment. A patient with chronic osteomyelitis of the femur and a patient with osteoarthritis deformans had but a slight relative increase in agglutinins and antitoxin and these patients were only slightly improved by vaccine-toxoid treatment.

The authors summarize their findings as follows: Normal individuals receiving ten injections of staphylococcal vaccine-toxoid combined (Staphylococcus Vatox) showed a decided increase in both agglutinins and antitoxin. The average increase of agglutinins was fifty-seven-fold and the average antitoxin increase ten-fold when compared with preinjection levels. Patients with known or suspected staphylococcic infections were on an average less responsive to antibody stimulation than the normal group, although the serum of the patient with staphylococcal proctitis contained, after vaccination, agglutinins and antitoxin in greater quantity than the average of the normal individuals. The use of staphylococcal vaccine-toxoid combined is a logical approach to the dual stimulation of antibacterial and antitoxic substances in the treatment of staphylococcic infections.

EFFECTIVE THERAPY IN

Otitis Media

Requires Analgesia-Bacteriostasis, and Dehydration of the Tissues.

Auralgan

The Doho Chemical Corp., New York-Montreal-London

Motor Vehicle Accidents Reduced

The death toll of motor vehicle accidents is now about what it was twenty years ago, according to the *Statistical Bulletin* of the Metropolitan Life Insurance Company.

During the first six months of 1943 the accident death rate from motor vehicles among Metropolitan industrial policyholders was 11.6 per one hundred thousand, which is about what it was during the first half of 1922. The low mortality so far this year represents a drop of thirty-seven percent from the first six months of 1942, but it is thought unlikely that the rate for 1943 as a whole will be that much below last year's rate unless still more drastic curbs are placed on the use of gasoline. Nevertheless, the *Bulletin* believes it is safe to predict that the automobile death rate for 1943 will be down to about thirteen per one hundred thousand policyholders, the level prevailing in the early 1920's. The greatest reduction in fatalities has been among occupants of cars; there has been no material change in the accidents among pedestrians.

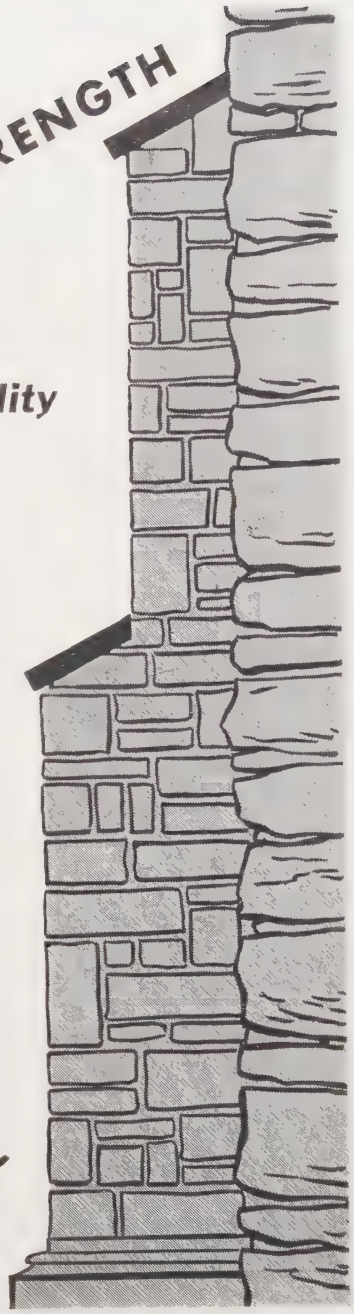
Medical Supplies for Ships Without Doctors

Ships sailing under the control of the War Shipping Administration which do not have ship's doctors aboard henceforth will be stocked with a revised minimum standard supply of drugs and medical supplies prescribed by the United States Public Health Service.

The revised edition of "Ship's Medicine Chest and First Aid at Sea", published by the United States Public Health Service, lists ninety-nine standard articles and how to use them. The list includes a wide variety of recognized medical supplies.

A BUTTRESS OF STRENGTH

for impaired vitality



MINOR ill health incapacitates the nutritionally "under par" with deplorable frequency under the stress of the present emergency. For these debilitated, asthenic patients, Trophonine X supplies a concentrated, readily assimilable food supplement, to bolster vitality by improving nutritional well-being.

First of all, two tablespoonfuls a day of Trophonine X provide the recommended daily requirement of vitamins B_2 and niacinamide and more than the minimum daily requirement of B_1—as well as amounts of B_6 and calcium pantothenate.

But that's not all! They also contain amino acids (including all the "essential" ones) for tissue maintenance and growth . . . and carbohydrates for quick energy release.

Trophonine X is an ideal formula for all your "run-down" cases. It is particularly valuable in febrile conditions or during acute illness, especially when solid food is interdicted or deglutition difficult.

In each fluid ounce: Thiamine hydrochloride, 5 mg.; riboflavin, 2 mg.; niacinamide, 10 mg.; calcium pantothenate, 1.5 mg.; pyridoxine, 0.75 mg.; amino acids (and other hydrolyzed protein derivatives), 1.6 Gm.; carbohydrates, 4 Gm.; alcohol 19.5% by volume; with coloring and flavoring.

Dosage: 2 to 4 tbsp. daily for adults, as directed by the physician.

Available: in 12-oz. and 1-gal. bottles. Also available: TROPHONINE, with same formula except for omission of vitamins.

REED & CARNRICK, JERSEY CITY 6, N. J.

TROPHONINE X

—a palatable, nutritious liquid food supplement

DEFINITE TREATMENT
FIXED CHARGES
MINIMUM
HOSPITALIZATION

•

AUTHORITATIVE
INFORMATION
AND HOSPITAL
LITERATURE
ON REQUEST

THE CHAS. B. TOWNS HOSPITAL

41 SUCCESSFUL YEARS

TREATING DRUG AND ALCOHOL CASES

EXCLUSIVELY

•

293 Central Park West, New York, N. Y.
SChuyler 4-0770

Public Health in Chile

In Chile, tuberculosis, cardiovascular conditions, and venereal disease are jointly responsible for sixty percent of all deaths occurring during working life, for fifty-six percent of all hospital admissions, and for thirty-eight percent of the "latent morbidity" of apparently healthy persons examined by the medical services of the insurance institutions, says the *Journal of the Royal Institute of Public Health and Hygiene*, May 1943. These diseases, particularly tuberculosis, bring about an annual loss of 170 million hours of work, a loss equivalent to the unemployment of one-quarter of the able-bodied population. To cope with this situation a Preventive Medicine Act was enacted some years ago. Among its clauses was one requiring periodic medical examinations to be carried out systematically and free of charge for the great majority of workers and salaried employees in the country. Another clause introduced a system of preventive rest as an essential and effective means of saving the sick worker, treating him rapidly and prolonging his working life. Since the Act was passed, sixty thousand men and women have been medically examined and allowances for preventive rest have been paid to twenty thousand. It has enabled the controlled treatment of many victims of venereal disease, taking action in regard to contacts of tuberculosis and venereal disease, mass radiography, and provision of dental services at a low cost. Industrial medicine has been organized and fresh impetus given to the study of occupational disease.

Control of Tuberculosis

Dr. W. A. Sawyer (*New York State Jour. Med.*, Jan. 15, 1943) says that now more than at any other time there is reason for extra precaution so far as tuberculous infection is concerned. Many individuals will have to be employed whose health is substandard and who should be considered more susceptible to such infection. Therefore, there should be more effort made to extend and maintain proper health supervision, especially in regard to the detection and control of tuberculosis.

Use

COLLENE
REG. U.S. PAT. OFF.

Wherever silver is indicated

You and your patients will equally appreciate the cleanliness and effectiveness of Collene, the original clean and stable silver solution—Always ready for use.

Write us for Samples and Literature

COLLENE LABORATORIES, Inc.
77 White Street, New York, N. Y.

BURNHAM SOLUBLE IODINE
Accurate dosage for thyroid effects. One drop supplies 1 mg. iodine. Endocrine protection in critical life periods.
Write for suggested dosage and sample
Burnham Soluble Iodine Co., Auburndale, Boston, Mass.

SISTER KENNY'S New Book on INFANTILE PARALYSIS

In collaboration with Dr. Jno. F. Pole (Univ. Minn.) Endorsed by the American Orthopedic Ass'n, and by the Nat. Foundation for Infantile Paralysis.

Only authoritative work on the Kenny method. Richly illustrated. 368 pages.

Order it today. Price $5.00

GROVER'S HIGH FREQUENCY

To Practice PHYSICAL THERAPY Successfully you must understand the fundamentals and physics of electricity. Both are taught in a comprehensive manner in this work.

New Chapters added in this edition, on SHORT WAVE THERAPY and HYPERPYREXIA. A book of experiences gleaned from thirty years practice. PRICE $3.50.

Including a copy of Grover's Unique Book on Blood Pressure, with Diagnostic Chart.

WAR MEDICINE

A new book, covering all phases of *War Surgery, Aviation, Psychiatry,* and *Medicine,* by 50 experts. No work like it. Price, $7.50.

We supply any book or magazine.

ENDOSCOPIC PROSTATIC SURGERY

For the first time a comprehensive illustrated technic of Transurethral Prostatic Surgery, *by Dr. Roger W. Barnes,* White Memorial Hospital. 104 illustrations. 235 pages. Price, $6.00.

PICTORIAL HAND BOOK OF FRACTURE TREATMENT (New), *by Edw. L. Compere.* Most practical work on fractures in a decade; the latest methods illustrated and described; technic of skeletal traction and internal fixation. $4.25.

UROLOGY IN GENERAL PRACTICE, *by Ockerblad* and *Carlson* (Univ. Kas.) A mentor for practitioners who now must be able to handle the ordinary run of G-U cases; illustrations and technics by masters of the arts. $4.00.

BED MANNERS, (New) Bed-iquette for the married. An intimate and confidential resume of bed-going and bed-doings; humorous and instructive. Illustrated. $2.00.

MODERN HOME MEDICAL ADVISER, *by Dr. Morris Fishbein* (A.M.A.) and 24 specialists. Covers the entire field of medicine. 900 pages. Price, $3.50.

SULFANILAMIDE AND ITS USES, *by W. W. Spink, M.D.* (Univ. Minn.) Infections defined and classified. Ill. $3.00.

ENDOCRINE THERAPY IN GENERAL PRACTICE, *by Sevringhaus.* Ill. $2.75.

THE MICROBE'S CHALLENGE a new book *by Dr. Frederick Eberson,* who made bacteriology a life study. $3.50.

ELECTROCARDIOGRAPHY, *by Graybiel* and *White* (Harvard). A new book, with 272 electrocardiograms. $6.00.

ARTHRITIS, DIAGNOSIS AND TREATMENT, *by H. M. Margolis, M.D.* 140 ill. $7.50.

REHABILITATION OF THE WAR INJURED. Covers the entire field of Reconstructive and Plastic Surgery, Orthopedics, Physical Therapy, Occupational and Re-educational methods. By American and British Specialists. A monumental volume. Illustrated. Send for prospectus and table of contents. $10.00.

BIRTH CONTROL. Explains Ogino-Knaus technic. No mechanical or antiseptic interference. **$2.00** postpaid, including timing chart.

SCIENTIFIC INTESTINAL IRRIGATION

by J. E. G. WADDINGTON, M.D.

An authentic record in print and picture of everything that colonic irrigation means to forward-looking medicine. Order today. Price $5.00.

PHYSICAL THERAPY

By J. E. G. Waddington, M.D., based upon 25 years experience as practitioner, author and teacher.

Last word on the application of the Short and Ultra-Short Wave Therapy. Diathermy, Electro-Diagnosis, Electro-Surgery, Galvanic and Sinusoidal Currents, and Many Other Modalities. Price, $5.50.

"Archives of Physical Therapy" $5.00 *the year, (Monthly)*

Publishes all papers read at the Congress of Physical Therapy.

Send check with order and books will be prepaid. Or will ship C.O.D. plus return charges.

THE ELECTRON PRESS 200 B. M. Ass'n Building, Kansas City 8, Mo.

Orders from Pacific Coast filled by Fassett Medical Book Agency, Carolands, Burlingame, California.

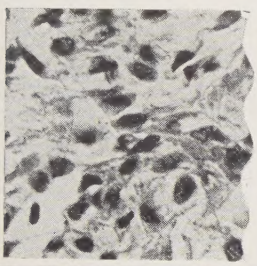
Incidence of Infantile Paralysis

While accurate predictions are impossible, there is an indication that 1943 may go down on the records as one of the major epidemic years for infantile paralysis, says *National Foundation News*. Analysis of the situation at the end of the first twenty-six weeks of this year shows the total number of cases to be higher than for any of the past twelve years, excepting 1934. During the first six months, 1,084 cases were reported from forty-two states. (The six month average for the past ten years is 841). The most severely affected states are California, Texas, and Oklahoma with totals of 351, 230 and thirty-three cases, respectively. In the latter state, however, unofficial reports received since the compilation for the period ending July 3d, indicate there has been a marked increase.

Records for the past twenty-five years show that the peak of each year's outbreak, when figured for the country as a whole, is not reached until sometime between mid-August and mid-September. These records further reveal that the sharp increase in incidence occurs between July 1st and September 1st with a corresponding sharp decline during the ensuing two months.

Sixteenth Graduate Fortnight

The subject for discussion at the Sixteenth Graduate Fortnight at the New York Academy of Medicine, October 11th to 22nd, is "Disorders of the Digestive Tract". At the first evening session on October 11th, Dr. Arthur F. Chace, president of the Academy, will deliver the address of welcome. The scientific program which follows includes the Ludwig Kast Lecture which will be delivered by Dr. A. C. Ivy, of Chicago, his subject being "The Physiology of the Gastrointestinal Tract," and an address by Dr. Harold G. Wolff on "Emotions and the Gastric Function." There will be addresses by leading gastroenterologists at all evening sessions and on Friday evening, October 22nd, at the closing session Dr. Robert Elman, of St. Louis, will deliver the Wesley M. Carpenter Lecture, his subject being "Parenteral Fluids and Food in Gastrointestinal Diseases". There will be four panel discussions held on Tuesday and Friday mornings throughout the fortnight, and each afternoon clinics will be held in ten of the leading New York hospitals. There will be exhibits demonstrating recent advances in gastroenterology, and in the library there will be an exhibition of books.



SILICA IN THE INJECTION TREATMENT OF HERNIA

Permanent fibrosis and rapid results accompany the fibrogenetic activity of Silica as incorporated in Alparene No. 2 (SiO_2—CaF_2 in suspension). A unique chemical combination of unusual effectiveness. Three years of extensive clinical trial. NON-TOXIC, painless.

← Human section showing fibrosis nine months after injection.

Write for Literature

Dequin Physicians Products Co., 75 E. Wacker Drive, Chicago, 1, Ill.

DR. BARNES SANITARIUM

STAMFORD, CONNECTICUT

For treatment of Nervous and Mental Disorders, Alcoholism and Convalescents. Carefully supervised Occupational Therapy. Facilities for Shock Therapy. Accessible location in tranquil, beautiful hill country. Separate buildings.

Telephone 4-1143 **F. H. Barnes, M.D., Med. Supt.**

"INTERPINES"

GOSHEN, N. Y.

Phone 117

ETHICAL — RELIABLE — SCIENTIFIC

Disorders of the Nervous System

BEAUTIFUL—QUIET—HOMELIKE—WRITE FOR BOOKLET

Frederick W. Seward, M.D., Director Frederick T. Seward, M.D., Resident Physician Clarence A. Potter, M.D., Resident Physician

SHARP & DOHME
ANNOUNCES
SULFAMERAZINE

Sulfamerazine, or 2-sulfanilamido-4-methylpyrimidine, is a new compound which will simplify dosage and lower costs in sulfonamide therapy.

Sulfamerazine was developed at the Medical-Research Laboratories of Sharp & Dohme and has been subjected to intensive pharmacologic and clinical examinations during the past few years. Supplies of this new drug will soon be generally available.

Rapidly absorbed . . . slowly excreted

In comparison with sulfadiazine, sulfamerazine is more rapidly and completely absorbed from the gastrointestinal tract and more slowly eliminated by the kidneys. Thus smaller or less frequent doses of sulfamerazine are necessary to produce and maintain therapeutic concentrations of the drug in the blood and tissues.

Moreover, free and acetylated sulfamerazine are more soluble in neutral or acid urine than are the corresponding forms of sulfadiazine. This fact, together with sulfamerazine's slow rate of excretion, diminishes the possibility of drug concretions in the urinary tract.

Small, infrequent doses

The less frequently required doses of sulfamerazine reduce sulfonamide therapy to its simplest, most economical terms. In diseases in which four to six doses of sulfadiazine (or other sulfonamide) are given daily, the same therapeutic results may be obtained with a minimum of inconvenience to the patient and at proportionately lower cost by only two to three doses of sulfamerazine.

•

ADMINISTRATION . . . Sulfamerazine tablets are administered by mouth in the treatment of infections caused by pneumococci, streptococci, meningococci and gonococci. Solutions of sodium sulfamerazine can be given intravenously.

Moreover, the smaller dose and longer retention of sulfamerazine have suggested the new drug's value as a prophylactic against certain infections. Sulfamerazine is no more toxic than sulfadiazine and appears to be safer, especially with regard to the possibility of urinary complications.

Supplied in 0.5 Gm. and 0.25 Gm. tablets. Sodium Sulfamerazine Powder (for intravenous solutions) is available in vials containing 5 Gm.

Detailed information concerning sulfamerazine may be obtained upon request from the Medical-Research Division.

Sharp & Dohme

PHILADELPHIA (1) PA.

THE FIRST GREAT STEP

Solganal-B Oleosum

GOLD THERAPY IN RHEUMATOID ARTHRITIS

With continued therapeutic use of gold and its ever-increasing clinical acceptance, it is clear that the first great step in combating rheumatoid arthritis has been taken. The improvement obtained with SOLGANAL-B OLEOSUM is usually so striking that there can be no doubt as to the results.

Among the available gold salts, SOLGANAL-B OLEOSUM, containing 50% gold, is particularly distinguished for maximum therapeutic efficiency and minimal toxicity.

Additional information may be obtained from the Medical Research Division.

SCHERING CORPORATION · BLOOMFIELD · N. J.

SCHERING

FOR VICTORY AND AFTER: BUY WAR BONDS

IMPORTANT ECONOMIES NOW MAKE IT POSSIBLE TO PRESCRIBE THE MOST POTENT ANDROGENIC SUBSTANCES TO A WIDER GROUP OF PATIENTS . . .

because . . .

PERANDREN,* pure synthetic testosterone propionate, has been reduced 10 per cent in price. Being the most effective androgen available for intramuscular administration, this product has assumed greater importance in a growing list of indications and consequent savings are normal reflections of increased use.

because . . .

METANDREN* TABLETS, orally active form of methyltestosterone intended for ingestion therapy, have been reduced by 37½ to 40 per cent. Here, too, the extensive use of this substance in medical practice has made possible production economies rightfully passed on to the patient.

because . . .

METANDREN LINGUETS* are effective in doses ⅓ to ½ less than those required when methyltestosterone is ingested. Absorbed directly through the oral mucosa into the general circulation, this sublingual form of methyltestosterone sidetracks the portal circulation and the liver, thus preventing partial inactivation. Consequently smaller doses can be given with equally uniform results, offering complete and potent therapy at low cost.

CIBA *Pharmaceutical Products, Inc.*

SUMMIT, NEW JERSEY

*Trade Marks Reg. U. S. Pat. Off.

"Metandren Linguets" identifies the product as methyltestosterone of Ciba's manufacture, for sublingual administration.